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आर्यसिद्धान्त

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वस्यपश्यं काव्यं न ममार न जीर्यति॥

हस्त लिखित

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श्री. जयदेव

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४४ संख्या
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हंसी

(लेखक - श्री छाँटे)

'हंसी! तुम्हीं मुझ को बहलाने, नीन तुम्हारा अहलीयाम।
 मैं ने तुम्हें बहुत स्थानों पर कण्ठ देखा है' निश्चयाम ॥
 प्रेमी जन. की मुख मण्डल पर हुये हुये बिन्दु जीवन दूध
 तुम नीरव अन्धकार भाव से ऊँच देखी करती करती ॥
 बिछुरे फिर से मिल जाते हैं, निः-व्याधा का होता अन्त।
 घुसे हृदय सरोवर में फिर भर जाता है स्नेह अनन्त ॥
 ईश्वर के द्वेष से जलते हृदयों पर पं पं पड़ा डाल।
 कभी दिखाया करते वैशाखिक चन्द्रों का दृश्य कराल ॥
 नव पुनर्जी के फुल नयन पर दुर्गम पदों को कर पार।
 ये वैशर्मा फिर करती वृ, बिना किसी संकोच निवार ॥
 जहाँ अकेले प्रेमी मिलते, सुख सुख करते प्रेमा लाय ॥
 उन की क्षणिक-स्निग्हा लख कर व करती भासे से लाय ॥
 जलसी कोथानिल पर बनती, कभी कभी वृ घट की चार ॥
 कभी तुम्हारा कर जलन हृदय की, भर देती है शक्ति अपार ॥
 जहाँ नहीं भाषा जा सकती, वाणी की हो जाती हार ॥
 उन अनुपम भावों के ऊपर, तेरा ही रहता अधिकार ॥
 ये शक्तों की अक्षुब्ध भाषी ॥ तुम्हें को वृ कर वह लोक ॥
 प्रकट किया करता है, दिल की करुण मूर्ति प्रेम अक्षर शोक ॥
 किश अज्ञान. शर से आकर छोटे मुख बार बरे पसार ॥
 शत्रु भर रहती; फिर भग जाति, तेरी मरिजात अंगम अपार ॥

हरि-भजन

हरि की नहिं हूँ भुलाया रे ।

यह तब माटी का पुतला हूँ माटी में मिल जाया रे ॥ १० ॥

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जल बुदबुद, हिम उमल, हरिस यह हंग उमचल दिप जाया रे ।

इस बिजड़े का प्रिय पक्षी नृ अनन्त बही ३३ जाया रे ॥ ११ ॥ हरि को

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कट जा अनुभव भूल भुलैया, उलटा उलस मर जाया रे ।

पंखा बीच हंग तृष्णा ने तू, भट्ठ भट्ठ १२ जाया रे ॥ १२ ॥ हरि

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ले दोटी ली जीवन गोष्ठा अब नारिधि में जाया रे ।

मीथवा मही मंकर भीर से, बिहीरी मोति बन जाया रे ॥ १३ ॥ हरि को

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गमल गौर मरु को पीकर कुमति कुपथ मत जाया रे ।

हमल हमल कर फग यह मग में धनं बिसल गिर जाया रे ॥ १४ ॥ हरि

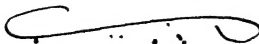
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प्रीतम तू, उर अन्तर बीठा स्वीजत नरं अजाया रे ।

हिल विनैक विलोचन हरि को मन मन्दिर या जाया रे ॥ १५ ॥ हरि को



मनु और इन्द्र

अत्येक भारतीय ने 'मनु' महाराज का नाम कई बार सुना होगा। उही के नाम से 'मनुस्मृति' नामक ग्रन्थ प्रसिद्ध है जिसमें वैयक्तिक, सामाजिक, धार्मिक, तथा राज-नैतिक नियमों का विधान है। प्रायः यह समझा जाता है मनु महाराज कोई एक व्यक्ति हुए हैं जिन्होंने भारत में शासन के नियमों का निर्माण कर अन्वयन-स्था को दूर किया। प्रकरण-प्र-वृत्त होने के कारण हम यहाँ पर इस विषय की आलोचना नहीं करना चाहते। हुआ मत यह है कि मनु नाम से कोई एक व्यक्ति हुए हों, ऐसा नहीं है। व्यास गद्दी का नाम पड़ गया, शङ्खु-ए-बाबू भी गद्दी का नाम ही हैं, इसी प्रकार 'मनु' शङ्खु भी एक गद्दी के लिये ही प्रयुक्त होता रहा है। 'मनु' शब्द की व्युत्पत्ति 'मन्' धातु से है। संस्कृत में इस शब्द का अर्थ मानत करना, नियम बनाना अथवा *Legislate* करना है। मनु शब्द का भावार्थ ही नियामक अथवा

Legislator है। इन अर्थों में 'मनु स्मृति' उस ग्रन्थ का नाम है जिसमें भारत के प्रसिद्ध मनुजों के द्वारा नियमों का समुह हो। मनु जो कोई भी बन सकता था परन्तु इस लिये देश-देशान्तरे के शासन नियमों का तुलनात्मक अध्ययन करने की योग्यता अपेक्षित होती थी। जिस व्यक्ति में इसी योग्यता पायी जाती उसी को 'मनु' अर्थात् *legislator* की कदवी से निर्धारित किया जाता था और उस के निर्दिष्ट किये हुए नियमों पर शासन व्यवस्था कर के उन का समाज में प्रयोग आरम्भ हो जाता था। जिस प्रकार ईजिप्ट के राजाओं को कैरोहा कहा करते थे, पारसियों के शक्तिशाली राजाओं को क़सरसीज़ कहते थे, हिन्दुओं में शक्ति से देश-रक्षण तथा देश-विस्तार करने वालों को क्षत्रिय नाम से पुकारते थे इसी प्रकार नियमों के निर्माण में प्रचुर गति रखने वाले विद्वानों को मनु कहा करते थे।

ईजिप्शियन, यवनी तथा ग्रीक छोटे कथन की पुष्टि करते हैं। ईजिप्ट की शासन के नियम देने वाला मैनीज़ (Meneptah) था जो कि मनु के अतिरिक्त दूसरा कोई नथवा हमारे कथन का यह अतिशय नहीं कि भारतवर्ष से मनु महाराज ही ईजिप्ट चले गये थे (अभिप्राय इतना ही है कि भारतवर्ष में नियमों की रचना करने वाले को 'मनु' कहा जाता था)। इन लिये ईजिप्शियन लोगों ने

की अपने देश में शासन की व्यवस्था करने वाली को 'मैनीज' नाम देना प्रसक्त किया। यहूदियों में नियमों का विधान करने वाला (law-giver) 'मूसा' (Moses) है। बाइबल के प्रागे अरकनीय के अनुसार मूसा ही परमात्मा (जिहवा) के पास जा कर उस आशाओं (Ten Commandments) को लाया था। यहूदियों ने भी अपने नियमों के व्यवस्था की मनु का ही नाम दिया जो कि उन की भाषा में 'मूसा' के रूप में प्रचलित हुआ। ग्रीक लोगों का जिनम-उपवर्क मारिनोस (Minos) कहा जाता है। ग्रीक इस विषय के अनुसार 'मारिनोस' शब्द की तरफ से क्रीट शहर में आ कर रहने लगा। इस की निष्ठा से प्रभावित हो कर शहर के निवासियों ने उसे नियमों के नियम बना देने का सुप्रेष किया। इस सुप्रेष को देख कर उस ने उन से कुछ प्रेरित ली और प्राजा करवा हुआ इजिप्ट जा निकला, जिसे 'मैनीज' में जाकर उस ने उस देश के नियमों का प्रवर्णन सीरी से अवग्रह किया। इजिप्ट से लौट कर वह एशिया पश्चिमी आदि होता हुआ सिन्धु नदी के तटों पर प्रवर्णन करता रहा। शब्द लम्बे नोट प्रवर्णन के अनन्तर बा फिर क्रीट की लौट कर जला गया जहाँ जा कर उस ने देश के लिये नियमों की रचना की। उन नियमों को सारे ग्रीस ने स्वीकार कर लिया। इन नियमों को बढ़ते हुए निवासियों के रूप में तब तक माने जाते हैं। ग्रीस का वह इजिप्ट के शासकों से मिलता हुआ भारत में पहुँचा। ही न हो, अन्त में इजिप्ट के

पुरातन विद्वानों ने उसे अपने वास्तव्य को ही कहे के लिये निवास की रचना भारत में की तक संकेत किया होगा। इसी लिये तो वह विद्वान एशिया की ओर कर सिन्धु के किनारों की राव रचानता रहा। जब सब देशों में मनु का देश को नियमों में रखने वाली नियमों का उस ने गुहनात्मक अवग्रह कर के ग्रीस की प्रजा के समुद्रव रखा होगा तो इस प्रजा ने भी सामान्य तौर से उस मनु (Mino) की पद्धति से निर्धारित किया होगा।

इस प्रकार समक आ जाता है कि हिन्दुओं का 'मनु', इजिप्टियनों का 'मैनीज', ग्रीक लोगों का 'मारिनोस' तथा यहूदियों का 'मोजेज' - चारों के चारों एक ही मनु शब्द के अवग्रह हैं और उन देशों में व्यवस्था के नियम बनाने वाले निवासियों के लिये प्रयुक्त होते रहे हैं 'मैनीज' - 'मारिनोस', - और 'मोजेज' के नाम बचपन से ही नहीं रखे गये थे मरतु जन के २ व्यक्ति नियमों के निर्माता बने तब मारिनोस की प्रचलित प्रजा के अनुसार उन का नाम मनु या Legislator रखा गया।

जिस प्रकार 'मनु' का नाम निवास रूप प्रयोग कर संसार की समुन्नत सम्प्रदायों को शासन करता रहा इसी प्रकार 'इन्दु' देवता का बिचार भी प्रायः सभी पुराने धर्मों में पाया जाता है। दूसरे धर्मों में इन्दु का स्थान सम्प्रदाने के लिये हमें भारतीय देव-माला में इन्दु का स्वरूप समझ लेना चाहिये। संस्कृत में इन्दु के लिये 'पौ' - 'दिनस्त्रि' - 'इन्दु' - 'मैनी' आदि शब्द प्रयुक्त होते हैं। पुराणों में इन्दु को स्वर्ग का अधिकारी माना

लगा है - नरुणी का राजा है, देवताओं में बहुत ऊँचे स्थान का अधिकारी है। इन्दु के कब्जे में बहुत सी अस्त्रास्त्र हैं। साधु, सत्पुरुषों का वत भ्रम करने के लिए इन्दु उन का दुरुपयोग करता ही रहता है। मुलोक में उस कतिनास स्थान है। नरु निजुली की कड़क में कभी अथवा उग्र-रूप को प्रकटिमा दिखलाया करता है।

'द्यौः' की विशेषता को यदि 'द्यौः' का दिशा ज्ञाम तो 'द्यौः' का स्व 'द्यौः' से जाता है। 'द्यौः' का अर्थ 'पुरुष' - 'विष्णु' होना कठिन नहीं है। 'विष्णु' मत का शीर्ष में श्री देवता 'विष्णु' (Vishnu) मत गया और पुजने लगा।

ग्रीक-शब्द शब्द के अनुसार Zeus शब्द को मुसलिस (Mussul) से हाँसी है अतः यह मानने में तर्किक भी संभव नहीं रह जाता कि ग्रीक लोगों का सबसे पुराना देवता Zeus वैदिक 'द्यौः' का ही अवतार है। ग्रीक लोगों को छोड़ दे, रोमन लोगों के मत भी इन्दु देवता की पूजा होती है।

देवी है। रोम का मुख्य देवता 'जुपिटर' (Jupiter) था। यह 'जुपिटर' - 'जुपिटर' - 'विमलितार' नहीं तो ओप का है ? इन्दु देवता ही 'ज्योतिष' नाम से ग्रीस में तथा 'जुपिटर' नाम से रोम में पूजा जाने लगा, इस में क्या अन्तर कुछ भी संदेह रह जाता है ? इन सब शब्दों की वरन्तर समता विलक्षण है।

उस देव का किसी भाँसे भी अन्तर कल्पित नहीं कहा जा सकता। इस के अतिरिक्त इन ग्रीक देवताओं को समान भी तो इन्दु का ही दिख गया है। इन सब से नाम भी नहीं कहा जा

गया है। रोम के इतिहास कवि ओविड

ने जुपिटर को देवताओं में मुख्य दर्शाया है। सारी देवमण्डली उसी अवधारणा में भाँती है। जुपिटर नारुन्गर निजलीकी की शक्ति करता है, - अथवा रोमिन्दु भी वही है - नरु अथवा 'निधु' के रूप को धारण कर नरुमण्डल में इन्द्र को क्या देने वाले धनदोर नारु को दिखा करता है। ओविड ने जुपिटर को आरु नारु में भी शिथिल दिखलाया है। उन समझ करती हैं कि इन्दु के देवता में भी अस्त्रास्त्रों की भण्डार रक्ष करती थी, नरु इन्द्रों के आचारों को गिराने के लिये धावन से प्रमान किया करता था और हाथ से स्वयं भी कई बार आकार अव्यता के गर्दों में गिरा करता था। तब तो हमें इस बात में जरा भी संदेह नहीं

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इस को स्वीकृत कर के करता है कि
मेश नाम "I am that I am"
या "I am" है। इस के विभिन्न
शब्दों का अर्थ है 'ने ध्यान देने योग्य'
है। - *ehyeh asher ehyeh*, अमः
अमः अमः। वारसियों की जिज्ञासा
में परमात्मा अपने बीस नाम गिनाता
हुआ प्रथम नाम 'अहमि' गिनाकर
आगे चल कर 'अहमि भू अहमि' वह
नाम गिनाता है। वास्तवी साहित्य लेखक
चित्ति रखने वाले पाठकों को विदित
होगा कि संस्कृत का 'अ' - जिद -
भाव में जा कर 'ह' बन जाता है।
इस प्रकार 'अहमि भू अहमि'
का रूप - 'अहमि भू अहमि' -
बनता है। यह नाम ही मूदिया'
के हाँ उस रूप में वापस आता है
जिस का हम ने ऊपर उल्लिखित
परन्तु प्रारम्भ में यह मजुनेर से
लिखा गया। मजुनेर के २५ अध्याय

का २२ वां मंत्र है, "इमं एव
एवाहमि सोऽहमि"। कहा वह न
मन्त्र और वारसियों का 'अहमि भू
अहमि' एक ही नहीं है? यदि
ही है तो मानना पड़ता है कि वार
सियों तथा मूदियों ने इसी मन्त्र
के आधार पर अपने देवता का
नाम 'अहमि भू अहमि' -
'I am that I am' रखा।
कम से कम इस में संदेह नहीं रह
जाता कि कि मूदियों का 'जिहो'
कोई न कोई वैदिक देवता था। जो
कुछ हम ऊपर लिख आये हैं उस
के आधार पर हम यह कहने का भाव
करते हैं कि यह देवता इतु रोषा,
इतु का ही 'छो' नाम जीहो के
परा 'जीपल' पड़, इतु ही का
देव' इ नाम रोमनो के महा
'जुमिर' पड़ और इतु का 'छो'
नाम ही मूदियों में जा कर
जिहो' बन गया।

तुलनात्मक धर्म विचार की

आवश्यकता

समझना। आप इस शीर्षक को पढ़ते ही कहेंगे कि इस की कोई आवश्यकता नहीं। धर्म का तात्पर्य मनुष्य के अनेक शक्ति परमात्मा से मिलता है। धर्म क्रिया में लगे लायक है। इतना काम एक धर्म से भी सिद्ध हो सकता है। यदि हमें वेदों से ही यह निश्चय हो जाता है कि एक ही सा माका है तो बाइबल और कुरान के पाने पढ़ने से क्या लाभ। इस से तो हम केवल समय व्यर्थ गंवायेंगे।

आपने धर्म को पढ़ करके से प्रतीत आप के सामने गेटे कोलास रख देता चाहता है। यह कहा जाता है - He who knows one language knows none. इसका मत तात्पर्य नहीं जानिये। तब ही होसकती है जैसे ७ कवि संहिता

तथा अंग्रेजी भी पढ़ते हैं। सी. सी. से लेखन तथा इंग्लिश के सिवाय किसी भाषा से परिचय न रखते थे। इस का अर्थ यह होता है कि वे अंग्रेजी भाषा को इतना नहीं समझ सकते जितना बहुभाषी वे भाषा समझते हैं।

गठक गण। आप को यह गुण मार भी आधिक आश्चर्य होगा कि जो अंग्रेजी पढ़ने पर इतना कर दिया है कि He who knows one religion knows none. इसी वाक्य की प्रकृति में आप के सामने कुछ विचार दिते जाते चाहता है। प्रविष्ट के कि मैं आपने विषय पर आप में अपनी शक्ति से बढ़ाकर अति धर्म है यह विचार कर देना चाहता है।

तुलनात्मक धर्म की आवश्यकता

'धर्म' शब्द दो अर्थों में प्रयुक्त होता है
(क) जब हम यह कहते हैं कि आगे-
कल भारत-वर्ष में हिंदू धर्म-जैन
धर्म, ब्राह्मण धर्म आदि प्रचलित हैं
इस समय हमारा मू. मतलब होता
है वे सिद्धान्त जो प्रजाओं का पुलाके
के आधार पर माने जाते हैं वे भारत-
वर्ष में प्रचलित हैं। इसी लिए हम
हम यह कहते हैं कि रोमन साम्राज्य
से 'क्रिस्चियन धर्म' में आगया तब हम
धर्म शब्द को अर्थ इसी अर्थ में प्र-
युक्त करते हैं।

(ख) "आहार ति आभयमे पुन न सामान्य-
मेतत्तु शुभि-रिहाणात्। ~~सर्वधर्मोपदेशः~~
धर्मो है ते भावार्थ को विशेष : धर्म ही
हीन प शुभि-सामानः॥" इस श्लोक
में 'धर्म' शब्द उपर्युक्त अर्थ में नहीं
आया। यहाँ धर्म शब्द से हिंदू धर्म,
बौद्ध धर्म आदि अभिप्रेत नहीं प्रत्युत
उत्तम तथा उत्तम आचरण ही यहाँ
धर्म शब्द से कहा गया है।

धर्म के इन दो स्वरूपों को दो
भिन्न 2 नाम दिये गये हैं।

(क) comparative religion.

(ख) Theoretical religion.

अब धर्म को मेरे इस उपासना
का मतलब सामान्य आगया होगा।
जिसमें वे यह कहा कि 'He who
knows one religion knows
none' तो यहाँ धर्म (religion)
शब्द से बहली प्रकार का अर्थ
comparative religion है
आभयार्थ है। Theoretical reli-
gion के लिए सब धर्मों का ज्ञान
आवश्यक नहीं। यदि मनुष्य धर्म में
ही मिल जाए तो धर्म में पर जाने की
कोई आवश्यकता नहीं। गांधी बहुत
धर्मों से सम्बन्धित होते हैं किन्ती
ज्ञान की दृष्टि से जानने की कोशिश है।
इस लिए theoretical religion
के लिए ऐसा इच्छा नहीं। मैं तो
इतना कहना हूँ कि compara-
tive religion के लिए सब धर्मों
का ज्ञान आवश्यकता आवश्यक
है। यदि हम अत्यन्त धार्मिक पुला-
के के वास्तविक अभिप्राय को
जानना चाहते हैं तो अन्य धर्मों के
ज्ञान इस बात में बड़ा सहायक
होगा।

बुढ़नात्मक धर्म की आवश्यकता

इसके सिवाय मुहाबिरे भादि भी नदसते रहते हैं। मुहाबिरे में बड़े-शू अचने आभिप्रायों में तर्क प्रयुक्त होते अथि तु लाक्षणिक अर्थ में। इस को न जान कर लोग उस शू को उसी अर्थ में आभिप्राय अर्थ समझते हैं। उन्ने बड़े गहरों के गीत ऐसी दृष्टि स्थापना विल-कोच हो कर कर देते हैं। इसी कारण भिल २ भाषाओं का ज्ञान आवश्यक है। जब सब धर्मों का एक ज्योत ही है तो एक बात को सब धर्मों ने भिल २ रूपों में प्रकट किया है यह भावना परती है। इस को स्वीकार करते से यह तो भावना परती है कि एक धर्म को शांति प्राप्त करने के लिए अन्य धर्मों का अध्ययन करना आवश्यक है। होसकती है कि जिस बातों को हमारे धर्मशास्त्रों में आलंकारिक में तथा प्रत्यक्ष शब्दों में रखा है वह किसी धर्म में स्पष्ट रूप में मिलती है। उदाहरणार्थ बहुत सी बातें पेश की जा सकती हैं।

यह केवल बातें बतायेगा। सबसे पहले में यह बतायेगा कि पारसी धर्म ने क्या सहायता दी। पशु-हत्या के निषेध के सिवाय पशु-शू के धर्म विषय भी किसी दृष्टि तक कर सके। जिस भाषा में गो का स्वरूप वर्णन किया है उसी धर्म में पारसी धर्म (जिल) में 'गो' का स्वरूप वर्णन मिलता है। सिद्धा-वस्था में वह वर्णन परक 'मादि' होगा यह भावने का लक्षित है कि इसके धर्म पर धर्म यह भी कहसकते हैं कि वेद में गो शू का बहुत कि केवल शारिमात्र नहीं अथि तु रक्षणी भी। इसी प्रकार, रोपन, मिश्र तथा मे-नादम आदि धर्म शास्त्रों में उद्धृत हैं।

इस लिए मेरी सम्मति में गुण-कुल में इस आवश्यक विषय की बेनी ध्यान रखनी है। अकबर बादशह श्री भाग्यी न शस कले के कारण इस ले शांति न ३७ परानु आजकल तो पारनाथ विद्वानों के अन्धक पारस्परिक संस्कार को सही कर रहे हैं। इसे इस ले शांति कायदा उदाहरण

नास्तिक-वाद॥

भास्तिक्वाद के विरोध में जो बहुत से वाद उचलित हैं उनमें बहुदेवतावाद, वैदिकवाद तथा नास्तिकवाद मुख्य हैं। इन सबको यदि एक परिभाषा में कहा जाय तो अनीश्वरवाद कह सकते हैं। ये सब आचार्य में अनेक मतों में मतभेद रहते हुए भी इस बात में सहमत हैं कि पवित्रता, बुद्धि, प्रज्ञा तथा वेद आदि शुभगुणों को धारण करने वाले किसी परमात्मा की प्रशंसा नहीं। इनमें नास्तिकवाद (Atheism) अनास्तिकवाद (Atheism) के विलक्षण विपरित है। अतएव आने केवल तथा शास्त्र पर सुसमिति से विशेष विचार करना चाहिये।

नास्तिकवाद के प्रकार इस प्रकार हैं निम्नित स्वरूप नहीं बतला सकते। इन्होंने सिद्धान्तों के विषय में अपने ही आपस में बहुत मतभेद

हैं। तथापि इसे निम्न तीन प्रकार से समझा जा सकता है। १- अग्रसारित-नास्तिकवाद (Dogmatic Atheism)

२- संदेहात्मक नास्तिकवाद (Sceptical Atheism) ३- क्रुश्यात्मक नास्तिकवाद (Critical Atheism)

जब किसी पुत्रि और तर्क के रूप उदाहरण मान बैठे कि ईश्वर नहीं है' तो इसे अग्रसारित नास्तिकवाद कहेंगे। किन्तु यदि तर्क तथा पुत्रि का आश्रय लेते हुए भी कहा जाय कि चाहे ईश्वर हो या न हो वह मनुष्य के ज्ञान से परे है' अथवा 'उसके स्वीकार करने में कोई हानि प्रमाण नहीं' तो इसे क्रुश्यात्मक नास्तिकवाद तथा सुसमागतिक नास्तिकवाद कहेंगे। किन्तु यहाँ ये ध्यान रखना चाहिये कि नास्तिकवाद के ये तीनों प्रकार सभी भी अपने विस्तृत स्वरूप में नहीं पाये

जाते। इनका पारंपरिक संकर
होना उचित स्थापनिक होना है।
संदेहात्मक नास्तिकवाद तथा युद्ध-
रूप नास्तिकता को पृथक् २
देखना उचित नहीं है, और
प्रमाणित नास्तिकवाद तो स्व-
यं ही प्रत्यक्ष प्रमाण होता है।

यहां पर कई लोग नास्तिकवाद
को सता में ही समझते हैं।
उनका कहना है कि जब बाह्य-
संसार का क्रम तथा नियम और
मनुष्य की प्रकृति प्रकृति भी
ईश्वर के अस्तित्व को स्पष्ट दर्शाते
तब यह ही है, तो यह कैसे सम्भव
होसकता है कि कोई मनुष्य
नास्तिक रह सके। किंतु यह शंका
बर्ध है। जब कोई मनुष्य सचेत दिल
में अपने अन्तर्द्विद्वांसों पर दृष्ट
रहते हैं तो कई ऐसे भी होसकते
हैं जो कि अपने ही सचेत दिल से
परमात्मा का भी निवेद्य कर के
उत्तम द्वारा कोई अंधकार नहीं

कि हम धर्म, जो ईश्वर की देन
तथा देता प्रकृत विद्वानों के समीप
रखते तथा साफ शब्दों में बड़े गये
परमात्मा के निम्न परम निवेद्यों
पर अविरास उत्तर करेंगे।
तथापि यह संभव है कि अज्ञानत्व
किरी। वैसे वैसे नास्तिक विद्वानों
ने भी परमात्मा को नास्तिकता को
सिद्ध करने का प्रयत्न नहीं किया।
सब नास्तिकों का वैसे ही कहा पड़े
प्रयत्न रहा है कि वे अपने अविश्वास
को उचित रखने के लिये परमात्मा
को सिद्ध करने वाली युक्तियों का
अव्यवहार करें। नास्तिक में उत्तम
पदार्थ को नास्तिकता का अन्त
कहना भी उचित भी प्रत्यक्ष
नहीं है। किसी प्रजातन्त्र देश में
जाकर वहां पदचिह्न अर्थात् की
साक्षी से प्राणियों का निवास वही
सत्यता से प्रतिपादित किया जा
सकता है। किंतु यदि कोई कहे
कि यह शून्य देश है - यहां प्राणियों

का विवाह नहीं; जो उसे अपने
कथन की पुष्टि में उस सारी देशका
प्रबलमान बनाता आवश्यक होगा।
इसी प्रकार परमात्मा की सिद्धि इस
विस्तृत भूमण्डल में बिरे तो कीडे तथा
पतंगों की बहुत शयना की देख कर भी
को जातान्वली है; किन्तु इस राक्षसी के
होते हुए भी यह कहना कि इसमें परमात्मा
का हाथ नहीं अवश्यमेव कहो जाने की
क्षमता तथा उद्दाम्यता को प्रकाश
करेगा। अतएव जब तक वह इस
केली हुई प्रकृति के जैरे २ को जान
कर अपने को विवाशवासी या सर्व-
व्यापक न बनाले तब तक उसका
बचन अभी भी अग्रामाणिक नहीं
होसकता।

इस उपर्युक्त भूमित्ता के निरूप
हो गई मुक्ति की प्रहांशय होली थी
ने उपासिकाओं के ही मध्ये मंडने का
निष्फल प्रयत्न किया है। उसका
कहना है कि परमात्मा की प्रथम
सत्ता तथा उसे सारी संसार का उपास

कारण सिद्ध करने के लिये मनुष्य में
सर्वज्ञता तथा सर्वव्यापकता के
गुणों का होना जितना आवश्यक
है। जब तक कोई मनुष्य सर्वज्ञ तथा
सर्वव्यापक नहीं बन जाता तब तक
वह कैसे स्वयं भाव सकता है कि इस
पुनिया के विस्तृत जाल और देश में
परमात्मा की अतिरिक्त नियम तथा
कृत की व्यवस्था का कोई आधार
नहीं। होसकता है कि किसी जाल तथा
देश में इस बात पर विश्वास करने
के लिये काफी प्रमाण हो कि प्रकृति
हो स्वयं अपने आदि कारण है।
इस प्रकार प्रत्येक महाशय होली थी
ने अपने निरीक्षों की शक्ति से ही
उसका मुंह बन्द करने का प्रयत्न
किया है; तथापि ये इसमें सफल
नहीं होसके। उनमें कथन में सम्भावना
पा ले और दिया गया है कि निम्न
परिणाम नहीं निकाला गया। उक्त
जगति छोड़ो से भी इसे पुष्टि करने
रामने नासां भी उपासित प्रकृति के

आह्वान

बलो बलें नद नद कौन बुलाता जगती के उस घर
 है नद नदी, ये लोचन
 बुला रहे तुमको व्यापारिण
 नीलमल पर उत्सु बने बरने कौन बिहार । बलो०
 बिजली वन बादल में आता
 गजे का हृदय गुनाता
 बरसाता अंबर से तुम पर अमुषमी जलपाव । बलो०
 सरल दिल से कौन गहिरा
 दुःख-सुख-सोचि बर सीतल
 अंबर की भली भर मोती दे ता क्यों उपहार । बलो०
 वृद्ध हूँ, अब कौन सहाय
 बस ! एक मुझे अति प्यार
 कर देलाये बुला रहा हूँ शीत बिरेष शांतिवार । बलो०
 अमुषम्वर का रूप बर
 बुल बुलाता अर्धरात्रि भर भर
 बरसाव की अंगुली से बरसा इज्जत बारम्बार । बलो०
 आजाऊँ, परहेज न माँगी
 पकड़े है माया मत माँगी
 मुझे भी न गहो यह बरने-इतने मैं न प्यार । बलो०

हृदयों का यदुःख विग्रह है
 मन को जो इतने रगता है
 हृदयों में जो कोई सने सोई तब होई पाकार।

‘सिपटल,

राही

इस अनन्य भाषा के दो पात्री! सांग हो गई, ठहर यही
 रात उंघोरी, पथ दुःखि है, यही ठहर जा, जा न बढी॥
 जूझ रीझ, पथ के बाली घिरा दुई हैं, चारों ओर
 यह २ मिलनी नमक रहि है, बकी कोने-नी वन कोर
 अंधकार इतना छापा है, लही पथ ब्या पता नही
 इस बेल में लड़ी जायगा? भात आन जा, ठहर यही॥

इस पथ ब्या तो उलान होगा, दिवस अंधार्या की आयनी
 लहे मसन है, थका बदन है, बेचन गवि हैं मुला की (ह)
 लक तब और चलीगा आई रुक रात बिधाम सही
 मेरे लगे थक में आजा, इति बसाजा, ठहर यही॥

राही पाठी,

ॐ श्रीगणेशाय नमः

कोन्ही "हूय मपून् नु मवावाइहो"

तब आप मुक्त हैं" यह उन्हें पक्ष पाल

हृदय से नहीं आये।
ब्रह्म सत्ये हृदय से ब्रह्म जाना चाहिये।

पुरोपमे स्थितियों की स्थिति ३७-

दर संवत् १८४६ (सन् १७८८)

ਸੀ ਪੁਰਾਂ ਲੀ ਲੀ ਰਾਜਪੁਤਾ ਨਿਰ ਭੁਭਾਂਗ

न्य राजनै तिद्य सावाजिद तथा शा-

सिद्धिवालों पर प्रभाव डालना तथा

अन्य उच्चतम प्राण राख्यो में हग

परिवर्तन विद्या यहाँ पर हमने की

इसके विशेष रूप से परिवर्तन, राद

दिवा। लोगों से प्राप्त। स्वयं कला।

तथा बन्धु-भाष्य से हंगे दोस्त-बन्धु इत्यादि

मिथिलि से विद्योपेक्षा १५५५-५६

१३ एतत्ते संज्ञा तं च द्वा (हृत् स्वरः)

जे राणा के पास सिक्के थे अधिकांश

भाति सायादिवार देगे विषयः

एक उग्रमुख बलवान भोज। बदोली-
ली जाती बलवाने हल बलवाने
बोवडी घटगा भी हुवि से देरन उमैर
इत पर बिस्ती उग्ररवा भी दवाव न
दिवा। उग्रलेन उमे मडां रा ममिल
नेत बा डां लेवे लुउअड लेलेलीने
दिनको भी रागने तिब दिवति को उ-
च्यदरेवा प्रमद दिवा।

दिनको दो रागने तिब अचिदार
दने ने न मिल निमलिखित धनु-
विवा मेरा मदरे हैं-

(१) मुकुचों मे लगान दिवकों भी लुउ
राकू भी उमैर है अकाल जितना लेवे
थ मुकुच का राकू लेवे उमकाई लुउ
भी बा भी राकू लेवे अग। मुकुचों मे
लगान दिवकों भी उमका राकू को पाद-
ती है। उमका राकू को अचिदार को दे
वति निवे निवे बलवाने तो बलवाने
को को बलवाने दिवा जमे। म. मुकुच-
को उमका निवे को दे वन मल लगाने

है। उमका निवे बलवाने दिवे निवे बलवाने
लगान निवे बलवाने है न दि उमका राकू
न ले। बलवाने को निवे बलवाने अचिदार
उमका लेवे न ही दिव जात, को दि-
उमका को यथा न ही। उमका राकू को
उमका भी बलवाने। यदि उमका उमका राकू
सग ही निवे बलवाने अचिदार को लेवे उम-
को भी निवे बलवाने अचिदार को लेवे उम-
का जमे। म. मुकुच ली वे बलवाने उ-
मका लुउ लुउ है। पर इतिहास को
देरने से बल उमका अचिदार ही उम-
का है दिवका को ले उमका है को-
दिनको दो निवे बलवाने अचिदार को लेवे
ते हैं। मलवाने लुउका का देवा निवे
उमका निवे बलवाने अचिदार को लेवे।
पर लुउ मुकुचों मे लुउका दिवकों को नि-
वे बलवाने अचिदार को देवा ही न्याय
पुल है। निवे बलवाने लुउका वति नि-
वे बलवाने अचिदार को लेवे उमका
राकू लुउ है उमका दिवकों को

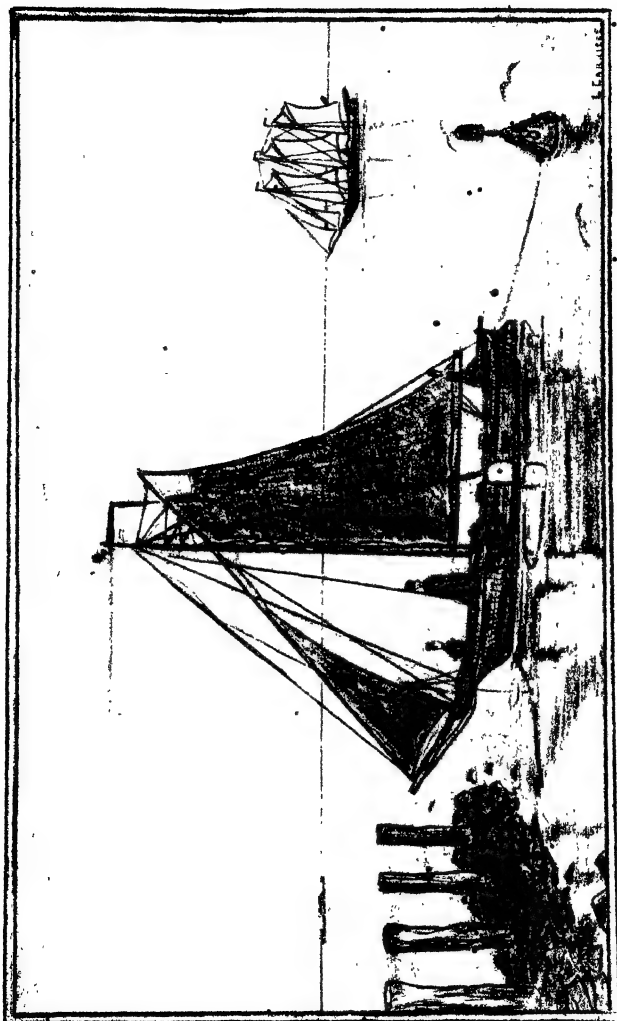
नीच ह अधिकार व्योम मिले। सब-
से बड़ी और बुद्धि युक्त नात तो यह है कि
मिल प्रसार १७२ पट्टे में रस की कल-
ता और ८२ हाथ से ताली न ही रस की
उत्ती धन्य २० तंका ता ता लयावता
नारय तब लम्ब की धर्मी कर न ही बल
लम्बता गवत ब दिव्यो नीराक्य नो न
अपनाये। प्रतिनिधि ^{तले} इतलन प्रकाश
ली। स्वतन्त्रता तथा लयावता नाल
न नो को दूध मे सा थ ही विहा था ता-
ता चाहिये। जिस बीज नो दिव्यो अप-
ता लेती है न ह सोक्य न अंग न प्रती
है। इस प्रकार लिखों नो निर्वन वन न
अधिकार न देता सोक्य न लिखे अति-
तम है।
(१) उक्त को न सहा विनो नो नी अ-
पनी संपत्ति न इतल न देवे न ह है।
राज्य पर न ता लयाव दिव्यो से न
सहकार न युक्त न सहा ब युक्त पर-
ती है। यदि हकार न ह सिद्धान्त

दि प्रतिनिधि निर्वन नी रस की
राज्य पर है धन (No taxation
without representation)
है तो पर दिव्यो नो देती है नाल।
नया युक्त ह है प्रतिनिधि निर्व-
न नाल तथा सहा न देवे न अधिकार
ह है। यदि सहकार उक्त से न ह प्रकाश
न ले तो ह सिद्धान्त न अउ सहा
न ह ह ह ह उक्त प्रतिनिधि नि-
निर्वन न नाल न ह है।
(२) संसार नी युक्त ली आति नो नो
नी नी न युक्त न सहा राज्य पर नो
नली है। ८२ लिखा नो थ, लेन, मेरी, नाल
अपनी न ह ता निर्वन दिव्यो नाल
ह ह न न दे तो पर ह लिखा न प्रसि-
ह है। सहा न नी सहा लिखों नो
न ही ही सहा नी ह ह से न न न
ह लिखा न से न न न। नाल को से-
न लिखे न न न न। न ह उक्त नो न
न न न उक्त न। अतः उक्त नो न न न न

राज्यनिर्माणद्वारा सिनको भावद्वारा
 विचार की हीन लिखा। शाका इति पुत्र
 श्री आनन्द के माफी राजा सिनको
 दो राजा सिनको पर बैसते हैं। इसका
 लोके सिनको को अति विधि-विशेष
 नका अधिकार देना चाहते हैं।
 यद्युक्त है।

इसको का दण्ड नहीं है। यदि सिनको
 उक्त पद्धति में राजा का राज्य पर बैसता
 उसकी राजसत्ता की घोषणा के मुक्ति
 तो नहीं करता। यह राजा गद्दी पर इस
 सिनको बैसता है। यदि उसकी विधि-
 सम्पत्ति है। यदि सिनको की विधि से
 पति की शासन विधि है। तो दावा देने की
 वस्तु प्राप्त है। श्री राजा का ही पर
 बैसने देता चाहते हैं। अति विधि-
 भरा राजा के सिनको को राजसत्ता का
 निर्धारण की अधिकार उपलब्धि पु-
 त्रि ने अज्ञात देना ही नहीं है।
 परन्तु इसको यदि राजा इच्छा करें तो

नेरा करे तो सिनको का अति विधि-
 निर्धारण विवाद सुगमता से हल
 दिया जा सकता है। तबले तो इससे
 लक्षित विधि तथा विधि-विधान
 राजा को ही सदा रहते हैं। जिस
 प्रकार उन्होंने राजसत्ता का उपार
 दिया। बहुत से राजा बैसा राजसत्ता
 बन सकते हैं। इसी से ही उन की घोष-
 ता सिद्ध होती है। अतः अब भी राजा
 बह बहने का दण्ड नहीं करते हैं। सि-
 नको को अति विधि-विशेष विधि-विधान
 शासन का अधिकार देना अज्ञात है।
 तबला ही राजा पर लक्ष्य बदलता
 रहती है। और इसका बदलना ही
 भावि-तत्कालीन युद्ध, तथा राजा
 ने सिनको हितकर है। यह राजा का
 अति सिद्ध में परिस्थिति को देखकर
 कहते हैं। श्री पुराणे का राजा
 बहने का तथा राजा का राजा
 से अतः इसे राजा का ही पद है।



०३ वंग के स्वभाव को जगदीश्वर-
राज पर अवलोकित रह कर तत्परासीन
परिस्थितियों के धारण शासने की
उत्तमोत्तम रत गयी है। उसे उत्तम
दशा के अनुकूल ही शासन चलाया
जाहि मे। यदि पुत्रों में मीरता, सा-
हसा तथा ये ये अधिप होते स्त्रियों
में शक्ति, कोमलता, श्रीति तथा स-
रलता अधिप है। अतः सनक मेरा
दू-धायक पुत्र, ३) और शक्ति के
साथ शक्ति और ज्ञेयय राज्य की शा-
सिका स्त्री को इस प्रकार राज्य की स-
त्ता वहुत उत्तम प्रकार से चला सकेगी
है। मतलब यह है कि प्रतीति विधि कि
शिव का शत्रु जितना विस्तृत विद्या
जाने उतना ही अच्छा है। यदि पुत्रों
में सम्राज्ञा अनुकूल दशा के अनुसर
शासन पुत्र के चलाता है तो स्त्रि-
कों में से ही योग पुत्र के विद्या ज्ञान
अगर उत्तम ज्ञान इस बात की उपाय

की और स्त्रियों को धर्म की दृष्टि से
दिसा गया तो निश्चय ही राज्य का शास-
की प्रोत्साहन और अन्त में स्त्रियों को
उत्तम अधिपार देना ही पड़ेगा।
राज्य को तो उत्तम शासन चाले येना
है वरन् स्त्री को अनुपम इससे राज्य को
बुद्ध की मतलब गयी होना चाहते
हैं।
(४) स्त्रियों का जीवन पारिवारिक है
अधिप है। स्त्री तथा पुरुष का विवाह
अनुकूल हो देना स्वाभाविक तथा
न्याय युक्त है। इस प्रकार विवाह
परिवार के निर्बन्ध फलदायक
प्रधारण देगा। यह अनुमति ही म-
न्त्री धरता है क्योंकि पुत्रों में राज्य का
दूला धार परिनार ही था। दूले वले
तथा सष्ट हार्य में शक्ति के साथ
परिवार की सुस्थिता का मदना श-
नित वत के अनुसर अन्त ही है।
जो पुत्र में था अगर नहीं करता स-

स्था जे उत्पत्ति हो ते इससे बच भय और
अच्छा बधा हो सक्ता है।

(५.) आज बल पुरोभी परम्परा में
 रिमो अ अचर कोर पर राजनीति
 में नागलेती है। पुन, को पर रिमो को
 निता अचर अचर होता है यह
 बिस्ती ले भी बिपाव ही। राजनीति
 होना अचर है बि अ अचर हाथनी
 अचर अचर हाथ हाथोना अचर
 हाथ है ही तो अचर हाथनी
 आज में राज में अचर परिराग अ-
 त्पन हो सकेते हैं। रिमो परको में से
 राज नीबल पुनका अचर इससे अ-
 चर राज में लिखे और अचर हाथ
 अचर हाथ हाथ है। अचर को भी है बि
 रिमो को रिमो। अचर अचर अचर
 बिपा जाने और अचर अचर अचर
 अचर अचर नी अचर अचर और पर रा-
 नीय हाथों में नागले और अचर अचर
 अचर नी नीबल है।

(५) दिनांक १०/११/२०१८ को भारत के अन्तर्गत
था यह भारत के अन्तर्गत था बीबी इन्फो-
एल्ले के स्पष्ट तौर पर प्रकटित है।

[illegible]

अर्थात् रात वन्दु जी के बाद 'सिंहासन'
पर बैठने का अधिकार सीता जी का
है न ही 'सिंहासन' पर बैठकर अम्ब-
द्विधी पर शासन करेगी।

इसी प्रकार १९६१ भारत ने समथनी
महाराज बुधियार् राजसूय
पहले पहिले संजला देशे बा विज-
यार् ले तैडे तब आते गग बाए
उग ले बहते है नि डुधियार्।

नेपो पुरास्तिरास्तिरा गत्वा राजन सुहृ-

दृतः। आशुत्तुनां च नौनां च स्वे स्वे
राज्ये निविश्य ॥ "

"नैलायविद्युः कार्गस्थान् सान्निवत्सु-
दाचरत्। राजन्यं प्रहृष्टीः सन्निवः पदि
पदि यमुत्तरात् ॥ "

"दुःभरि गश्ति के पाच्य न्यासनाभि-
वेच य। एव प्राग्भासने दृष्टी सन्निरा-
क्षेपु गारत् ॥ " प्रज्ज्वलानिने चोव

अथेदो विजयी पुरा ॥ ६८३. ४३-४४३

जित्ते देहो नराजानुहरे सच सुहृदे
नरे गस्तु है उने देहो ने जाओ और उ-

नदे राजकुलो ने दृत राजाओं ने भाई
पुनः तथा तेन जो नी योग्य निवसते

उगदाजानिने न दराओ दिनु ध्यान
रावनादि सभ प्रजापुत्रसे प्रसन्न रहे।
अदि निली कुल ने राज्यापु नारज हो

तो बहो राज न्याउते नो सिंहासन
पर दिवा दूर राज्यानिने न दराओ

हारा जावने नाले प्रावने हैं वि नहो

सुगन्धा और दिनु कायनी दोरानि-
यो सिंहासन परनेषी ॥ १ ॥ तथासी

तो नने तो न दृत सीमित भां रा ज्योति
हसन परनेषी सुभी है। महादेरादे
इति हारा ने अदुराग लीलावती ना-

नन ८५ नहिला ने बहो विरभालात-
न शासन ॥ ६५ ॥ इसने अतिरिक्त प्र-
मथ नाथ देवजी नि अदुराग अगुल,

सिंहली तथा दत्तात्रयना कायनी सी-

न दिनेषो बहो शासन नर सुभी है।

पाण्डव देहादे विषय ने ने गस्त्य नीक
सिरस्ता है वि नहो तो सदा स्त्री टीस-
जीवन नर शासन दिना नरत् ॥ १ ॥

अपस्तु नयन सावित नरता है वि
अति प्राचीन बाल ने स्त्रियों ने पुत्रों ने
न शापाग संख्य ६९ उ अंग सगः ॥

जाता था और उन को नी पुत्रों ने
समाप्त इति निधि निवीकना था
शांस्तेदा पुरा आदि न्या ८ ॥ १ ॥

ਸੁਨਸਾਨ ਗੁਰਕੁਲ,

ਧੁਮਤਿ ਧੁਮਤਿ ਘਨ ਘੋਰ ਘਟਾ ਘੇਰਿ ਆਇ ਗੁਰ ਗੁਰ ਜਨ ਸਨ ਅਨੁਲਾਇ ਏ।

‘ਜਸ ਜਸ ਅਸਥ ਅਥਲ ਅਥਲਾ ਨੇ ਹਾਹਾ ਚੁੰ ਆਇ ਧਾਮਿਤ ਕੀ ਨਾਨਕੁ ਧੁਮਿਅਥੈ ਏ।

ਹਾਂ ਹਾਂ ਕਰ ਬਾਬੂ ਚਲੇ ਤੀਰ ਲੋ ਅੰਗੇ ਤੇਜ ਆਮਿਤ ਕਿ ਹੁਸ ਕੇ ਭੇਖੇ ਲੇਖਾਏ ਏ,

ਦੁਖ ਅਤਿ ਅਥਾਹ ਚੁੰ ਦਿਲਿ ਧੀਰਵਾਏ ਗੁਰਾ ਧੇ ਅਥ ਸਮੇ ਰੁਖ ਲੇਖਾ ਆਇ ਏ ॥੧॥

ਦੀਲਤ ਕਰੁੰ ਗਾਇ ਗੁਰ ਗੁਰ ਆਇ ਮੁ ਕਰ ਸਮੇ ਤੇਰੇ ਗੁਰ ਦਿਖਾਏ ਏ,

ਤੋਰੇ ਏ ਨ ਹਾਰਾ ਪਤਿ ਰਾਤ ਗਾਰਾ ਪਥ ਆਇ ਰਾਤ ਦਿਨ ਕਰਾਹ ਅਥਾਸ ਮਚਾਏ ਏ।

ਵਿਧਾ ਨ ਏਕ ਰਹੇ ਅਕਲੇ ਥੀ ਅਥਾਹੇ ਲਾਧਾ ਪਥ ਗੁਰੀ ਅੰਗੇ ਕਥੇ ਆਇ ਏ,

ਘਟਾ ਥਾ ਧਾਮਾਤ ਨ ਘਟਾ ਥਾ ਪਲ ਅੰਗੇ ਹੀ ਰਾ, ਰੇਲੇ ਹੀ ਦੇਲੇ ਕਰਾਹ ਅਥਾਹੇ ॥੨॥

ਕੇ ੨ ਸਥਿਰ, ਪੁਰਾਣ, ਗੁਰ ਗੁਰ ਤਨ ਲਾਨ ਕੀ ਲਾਸ਼ੀ ਦੇਖ! ਗੁਰੇ ਹੀ ਕਰਾਏ ਏ,

ਲਾ ਅਥਾਹੇ ਚਰੇ ਦੇਲੇ ਗੁਰ ਅੰਗੇ ਨ ਗੁਰੇ ਕੀਰ ਆਇ ਲਾਸ਼ੀ ਯੋ ਪਲ ਮੇ ਲਿਖਾਏ ਏ।

ਰਾਹੇ ਕੀ ਥੀ ਲੇਖਾਤਿਯਾਂ ਕਰ ਅੰਗੇ ਨ ਲੇਖੇ, ਲਾਧਾ ਕੀ ਲੇਖੀ ਅੰਗੇ ਹੀ ਰਾ ਗੁਰੇ ਹੀ ਕਰਾਏ ਏ,

ਨਿਕਲੇ ਧੇ ਅਥਾਹੇ ਕਰੇ ਨਹੀ ਏ ਕਲੀ ਪਰ ਗੁਰੇ ਅੰਗੇ ਧੇ ਅੰਗੇ ਲਾਸ਼ੀ ਮਾਨਾਏ ਏ ॥੩॥

ਕੀਰ ਘਾ ਲੇਖੇ, ਗੁਰ ਕੀਰਾਏ, ਲਾਨ ਮਾਨਿ ਦੇਖੇ, ਲੇਖਾ ਕਰਾਹ ਧੁਮਾ ਦੇਲੀ ਕੇ ਧੇ ਲੁਖਾਏ ਏ,

ਕੇ ੩ ਧਾ ਧੇ ਲਾਸ਼ੀ ਏ, ਕੇ ੩ ਪਾਨੀ ਮੇ ਪਾਏ ਏ ਦੇਲੀ ਚੁੰ ਆਇ ਹਾਹਾ ਕਰਾਹੇ ਲੁਖਾਏ ਏ।

ਧਾਮਾਤ ਏ ਬਾਬੂ ਅਥਾਹੇ ਅਥਾਹੇ ਰਾਹ ਦੇਲੇ ਆਇ ਅਥਾਹੇ ਲਾਸ਼ੀ ਮਾਨਾਏ ਏ,

ਪਾਨੀ ਹੀ ਏ ਪਾਨੀ ਚੁੰ ਆਇ, ਗੁਰੇ ਆਇ, ਲਾਸ਼ੀ ਕੀ ਰਾਨ ਕਾਲੀ ਆਇ ਹੀ ਕੇ ਧੇ ਆਇ ਲਾਸ਼ੀ

ਧੁਮੀ ਕਨਕਾਸ਼ੀ ਕੀ ਪੁਰੀ ਅੰਗੇ ਨ ਰਾਨ ਕੇ ਧੇ ਅੰਗੇ ਨਿਜ ਅਥਾਹੇ ਲਾਸ਼ੀ ਮਾਨਾਏ ਏ,

ਕਦੇ ਕਦੇ ਕਰਾ ਧੇ ਆਇ ਪਾਨੀ ਕੀ ਕੁਰੀ ਅੰਗੇ ਨੇ, ਕੁਰਾ ਦੇਖ! ਧੇ ਅੰਗੇ ਨੇ ਲਾਨ ਕੀਰਾਏ ਏ।

ਗਾਮ ਆਇ ਪਾਠਾਹ, ਕੰਧਾਨ ਪਲਾਹ, ਕਰਾ ਪਲਾ ਕੀਰੀ ਕੀਰ ਆਇ ਗੁਰੇ ਆਇ ਏ ?

ਆਨਨ ਕੀ ਲੁਖਾ ਮੇ ਰੇਲੇ ਧੇ ਲਾਸ਼ੀ ਲੁਖਾ ਕੀਰਾ ਕਰ ਅੰਗੇ ਨ ਲਾਨ ਕੁਰੇ ਆਇ ਏ ॥੪॥

आई बिपद पे बिपद बंनरी पर दिल में निहुर दया न तेरे तनिक भी आई है,
रोष तेरे इतने पे भी न दाम शम्भु दुआ, बची लुकी चीज को भी अनादि लगाई है,
जतन से जोर जारी जो भी जमा कर पड़े, पापी गति तेरी उस पे भी लल-बाई है,
बोले जाते हूँ गति तेरी बिना बिपदा दे, कहे तो रे व्याह तेरे मन में सुभाई है ॥१५॥

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इस पर भी न तिस निहुर पसीज दिया नज से भी बखित हा तुब निहुराई है,
हर गये दाम हस यत्न कर का कर, जमावही पर तुब बैसी चुबराई है।
जल अजि बोध से बचा था जो भी बुद्ध-तूरे, उड़ा आंखी से उले दयालुता दिखलाई है,
तेरे उल्लेख सुद्ध सग ने लगा था जो भी भी, आम में तेरी प्रति बजी रहलाई है ॥१६॥

✽ ✽ ✽

अब भी न शान कसुमल दुआई लगा पूल ही हा पूल चुं दिलि में धई है,
जल अजि और वायु भूत का उच्छोष देख जित्ति भूमि तल के भी दिल उट आई है।
देती न दिखलाई हरिगली गरी मांदि अब रेत ही हा रेत चुं और बिधि बई है,
हूर कर मागे दही दही मसमल छाड़ी, बिपदा ने बसने की चर उलाई है ॥१७॥

✽ ✽ ✽

औषध भंडार, खादी गट, यन्त्रगार, श्रेष्ठ सिन्ध आदि की भी हा हा हूरी ही सुभाई है,
बला भवन, दानागार, राक्षस भंडार और घंघुड़ी की भी राब दरा बिगसाई है।
बहुत भाकरा नही, गुरुज बस नही, परि बर हट राजी दल! आज परा हई है,
सुखा नहीं, तारे नहीं, मरत गांभी हर (मे) नहीं, रिग सेउं की धोनी आज मिटी में सुभाई है ॥१८॥

✽ ✽ ✽

उम्ह-गई-र दूरे छूटे भवन बचे हैं जंगल-देवा, कोलिज ने आगव आग, ही सुभाई है,
उज-गई लाही घट फूल भी फुल नारी, यही र हस की भी आज गुर सुभाई है।
बोयल की बल नहीं, यत्न गुज्जर नहीं, बोको कीसी कां कां देती बन में सुभाई है,
लगत मसान और परम्पद सामाव हट सारा सुनसान 'कुल' देवा दिखलाई है ॥१९॥



Classification of science

वा
विज्ञानों का विभागीकरण।

पूर्व इसमें कि विज्ञान के विषय

में कुछ विशेषताएं हैं। विज्ञान की विशेषता

का करना आवश्यक है। संक्षेप से

यह कह सकते हैं कि संशोधित ज्ञान

(Correct knowledge) का

नाम ही विज्ञान है। जिस का उद्देश्य

क्रमबद्ध, सुदृढ़ सिद्धान्तों को बनाना

है। किसी विषय का मामूली ज्ञान

होना विज्ञान में शामिल नहीं, और न ही

सन्देहात्मक ज्ञान का नाम विज्ञान है

जैसे ग्राम का प्रत्येक मनुष्य (Inhabitant)

(Ct) कृषियों के विषय में कुछ न कुछ

जानता है, परन्तु, जब तक वह इस विषय

में क्रमबद्ध (Systematically)

ज्ञान प्राप्त नहीं करता तब तक (Entomologist)

कभी नहीं कहला सकता।

इसी प्रकार यद्यपि प्रत्येक मनुष्य

बहुत से घटकों के विषय में धर्मसिद्ध

रखता है, परन्तु, वह वैज्ञानिक नहीं

कहला सकता। अतः Systematic

correct knowledge हो विज्ञान

कहला सकता है। ज्ञान (जानने मात्र)

का नाम ही विज्ञान है, यदि उसे कार्य

रूप में परिणित किया जाय तो वही

विज्ञान में शामिल हो, किसी ज्ञान को

जब कार्यरूप में लाया जाता है। वा उसके

अनुसार किया जाती है तो वह कार्य

(Act) शिल्पकला के नाम से पुकारा

जाता है। यद्यपि Art और Science

का साधारणतया सम्बन्ध प्रतीत होता,

और ठीक भी है क्योंकि बहुत सी Sci-

ences, Arts को आधारभूत है।

कि Science में indirect तरी

का Art भी शामिल है। परन्तु, तो भी

इन की एकता हो नहीं। इस प्रकार विज्ञान

के स्वरूप पर दृष्टि अलित हुए अब

अपने विषय की ओर की ओर मुक्ते हैं।

सब विज्ञान एवं व्यवसाय (university)

के भिन्न भिन्न भागों पर प्रकाश

जंक्ते हैं, और ऐन भिन्न दृष्टियों से

रसायनी (study) पर विचार करते हैं।
जैसे chemistry प्राकृतिक तत्वों
पर विचार करती है, और गणित
धरातल (space) और संख्या (num-
bers) के गुणों (properties) पर
उत्पत्ति करता है। इत्यादि। इसी प्रकार
अन्य सब विज्ञान भी इस संसार के विरहित
विशेष अंशों पर विचार करके तात्त्विक
सिद्धान्तों का प्रतिपादन करते हैं।

अतः हम कह सकते हैं कि The
whole universe is the property
of sciences. अर्थात् यह सारा
संसार ही विज्ञान का वायुमण्डल (विज्ञान-
मय) है। अतएव प्राकृतिक पद-
ार्थ (जो वस्तु हो या चेतन) हमें विज्ञान
की ओर ले जाता है। सब प्राकृतिक
पर्यायना आमेक तत्व वैज्ञानिक च-
रित्रकारी हैं। अतः
यह सब संसाधारण विज्ञान गणीत है।
इस प्रकार उपर कह चुके हैं।

दूसरा विज्ञान (physics) यह
सम्बन्धी वा भौतिक है। यह matter
पर विचार करता है। तीसरा (chemistry)
कार्बोयन है, यह संश्लेषण तथा वि-
श्लेषण द्वारा प्रकृति के तत्वों पर विचार
करती है। जैसे यह जल को उद्भजन
तथा अम्लजनन के अन्तः करके उन
के गुणों पर विचार तथा पुनः उनसे गन्धी
बनाना इत्यादि बातें, ये कार्बोयन होती हैं।
रसायन जल की तरह एक युतात्मक
मूल की भी विरत करके उसके
तत्वों को र्खल करती है। यत्न, यह उसे
पुनः नहीं बना सकते और नाही उसकी
बनावट पर हाथ डालती है। इस के लिए
एक अलग विज्ञान है जो Biology
कहलाता है। इसके दो भाग हैं एक
Botany और दूसरा Zoology।
जिन्हें कृषि विपरिणाम प्राणी विज्ञान भी कहते
हैं। इसी प्रकार astronomy ज्योतिष
इत्यादि विज्ञान भी हमने जाना है।

उपर्युक्त सुन विज्ञान तथा अन्य बहुते
इसी एक ही खेती के विज्ञान हैं। इसका
प्रकृति कथन भी ओर तबों को उ-
तिपादन करते हैं। और *mental
sciences* हैं। इस के अति-
रिक्त कुछ विज्ञान आध्यात्मिक वाता-
नहीक हैं। उनमें मंद जानने के लिए
हमें मन (mind) को विरल पला
करना चाहिए। मन के तीन भाग हैं

I ज्ञान *the knowing*.

II इच्छा *willing*.

III सुख दुःख अनुभव *feeling*

जब मन के तीन भाग हुए तो तीनों
पर विचार करने के लिए तीन विज्ञान
होना तो आवश्यक है। परन्तु प्रत्ये-
क परार्थ या विषय पर दो प्रकार
का प्रयोग करने से विचार किया जास-
कता है। (I) जैसा कि वह (परार्थार्थी)
है, (*as it is*) और (II) जैसा कि वह
होना चाहिए (*as it ought to be*)
उदाहरणार्थ एक छोटे बड़े बाहुओं
वाली चतुर्भुज ली जाए, एक ज्यामिती

का ज्ञान यदि वह उस पर और एक ठंठंग
से विचार करेगा, उससे बाहुओं को ता-
पेगा, क्योंकि वे चंचल क्षेत्रफल लानेका
रुने का बन करेगा। उदादि 2. नो तो पर-
धान देना परन्तु एक *mental* चित्र
कार उस को न ताबट में अगुहि छंटे
गा और कहेंगे कि यह रसतर बरा-
न चाहिए था, दो और को बाहुओं का
रूप होनी चाहिए तब यह अच्छा ल-
गेगा उदादि। इसी प्रकार प्रत्येक पर-
दार्थ पर दो प्रकार से विचार किया
जा सकता है। एक जैसा वह का स्व-
रूप है, दूसरे जैसा होना चाहिए।
इस के अनुसार माना ही कजगर
के भी तीनों अंशों पर विचार किया
गया है और मन्त्र 2 विज्ञान बने हुए
हैं। *mental model* माना ही क
जगर के तीनों अंशों के (वर्तमान)
स्वरूप पर विचार करने वाला वि-
ज्ञान *psychology* है। यद्यपि
sociology आदि भी पृथक् रूप से
इस विषय पर और मुक्त हैं। परन्तु

तथापि psychology के अन्तर्गत ही हैं। mental world के तीनों अंशों के as ought to be स्वरूप पर विचार करने को भिन्न sciences हैं। 'knowing' (as ought to be) पर विचार करने के लिए logic है जो हमारे विचारों को शुद्ध करता है। 'willing' (as ought to be) पर विचार करने को ethics है जो अच्छा और बुरा (कृति) को correct करती है। और 'feelling' (as ought to be) पर aesthetic विचार करती है। जो beauty का नियामक है।

इस प्रकार विज्ञानों का क्रम कुछ इस प्रकार है। इनको tabular form में दिखाने के लिए हम इस प्रकार की (और भी विज्ञान का लेते हैं) विस्तृत तालिका है। एक गोला कल्पना करते हैं। उस के दो सम्भाग किए एक mental world का क्षेत्र और material world का क्षेत्र। शक है, उक्त विज्ञान सब स्तरों और बातों के वर्तमान स्वरूप पर ही

विचार करते हैं। अतः एक विषय पर एक प्रकार का ही विज्ञान है। सोचिए कि स्पष्ट है ही। परन्तु गणितिक



विषयों पर दोनो प्रकार का विचार है। उद्यम तीनों अंशों के भी प्राप्त psychology वर्तमान स्वरूपों का स्वीकार करने वाली है जो बारीक दूरदर्शी है। और तीनों अंशों पर as ought to be को बताते के लिए प्रत्येक उद्यम को एक निश्चित विज्ञानों के बोधक है। इस प्रकार यह सार जगत विज्ञानतम है और उन का सामान्य तम उपयोग के विभिन्न किया जा सकता है।

सही

मिस्री धर्म — और वेद ॥

लेखक - श. धर्मवीर

— 10 —

संसार के प्रसिद्ध धर्मों पर वैदिक धर्म का विशेष प्रभाव है, केवल प्रभाव नहीं परन्तु कुछ शक्त धर्मों का साक्षात् स्रोत वेद ही है अथवा दूसरे शब्दों में हम यह कह सकते हैं कि वे धर्म वैदिक धर्म के रूपान्तर ही हैं। फारसी, जैहूना तथा उपनिषदों के सातवादी की गणना इसी कोश में की जा सकती है। शेष धर्म धर्म धर्म से प्रभावित अवश्य हुए हैं परन्तु आज खोजों से निर्विवाद हो चुकी है। यही बात आज में ने इस कोश से निबन्ध में सिद्ध करनी थी कि परन्तु इस के प्रभाव से केवल एक ही धर्म पर - जिस का नाम मिस्री धर्म है - प्रकाश डालना चाहता हूँ। मैं यह सिद्ध करना चाहता हूँ कि मिस्री धर्म भी उन धर्मों में है जिस पर वैदिक धर्म के

ऊर्ध्वधर्म ने वर्षा ^{मेघ} प्रकाश की किरण प्रज्ज डाली है। नव शक्त धर्मों के अनुशीलन काले वाली विद्यार्थी मिश्र के धार्मिक विचारों का अनुशीलन करता है तो वह भारतीय विचारों से कुछ कम सम्पन्नता नहीं पाता। इस सम्पन्नता को देन कर यह शक्तवार अवश्य ही इसी परिणाम पहुँचता है कि भारत और कि के विचारों का परस्पर सम्बन्ध अवश्य रहा है। इन दोनों देशों के धर्मों के विकास में अवश्य भिन्नता है - परन्तु प्रारम्भिक एक साथ ही प्रतीत होता है। मैं हम दोनों देशों के विचारधर्मों के साथ चलते चले जाते तो जिससे हम एक ही धून सोत में जा पहुँचेंगे। क्योंकि विषय विस्तृत है तथापि इस विषय का दिग्दर्शन मात्र कर देने से ही हमारा अपेक्षा - अवश्य सिद्ध हो जायगा ऐसा मेरा विश्वास है।

प्रधान से प्रथम ईश्वर सम्बन्धी विचार को लेते हैं।

वैदिक प्राचीन काल में मिश्र के विकास एक ईश्वर में ही विश्वास करते थे

प्रमाण कि इन की प्रतियों के दोनो से मालूम पड़ता है।

डा० Thiele का कथन है कि मिस्र में शब्ददेवता नगद और नफुदेवता नगद दोनो ही साथ साथ प्रचलित थे। सि० सदेक डा० Thiele का कथन कुछ हद तक हीक भी है। परी- डा० Thiele नका अन्त वास्तव्य कि हान् मिस्री धर्म पर गहरी दृष्टि से विचार करते तो इन्हे इस प्रकार के कथन का अन्तर न मिलता। मिस्र नज तो कि मिस्री धर्म के विषय में प्रमाणों का समुदाय है इस का कथन है कि वास्तव्य विद्वान् जिस समय पहले पहले मिस्री धर्म का अध्ययन-शास्त्र करते हैं तो इन्हे यहां some polytheism की प्रतीति मिलता है पणु "When we examine these 'epos', - closely, then they are found to be nothing more or less than fables, or manifestations, or phases, or attributes, of one Epos, that Epos being the Sun-fod, who, it must be remembered was the type and symbol of Epos. (Egyptian Religion P. 13)

मानव में एक पही है। जैसे वेद में दोनो प्रतीत होते हैं पर वास्तव में सब का अर्थ एक दिव्य है। पही वास्तव्य मिस्री धर्म में भी लग सकती है। जहां वास्तव्य मिल २ गुणों का वर्णन है जहां तो लोगो ने नफुदेवता वाद समझा जहां कहा कि "इस मिस्र नज का धर्म पणु: ... एक सदिष्टा नफुवा नरानि अग्नि वं पतरी शवानपापु: बहां शब्ददेवता नगद समझा। मानव में शब्ददेवता नगद ही वैदिक धर्म का मूलक है। मिस्री धर्म में मि० नज का उदाहरण देते हुए हमने पही बात सिद्ध की है। इस विवादास्पद विषय के विचार कि हम अपने विषय को लेते हैं परमात्मा सम्बन्धी विश्वास मिस्र धर्म में बना है। मि० नज की प्रतीति को पढ़ने से पता लगता है कि मिस्रीधर्म का परमात्मा सम्बन्धी विश्वास बहुत ही उत्कृष्ट था धर्मों में केवल वैदिक धर्म से ही इस की तुलना पसन्द है। का समझता है। मि० नज ने अपना प्रमाण में लिखा है कि गुणों मिस्र के लोग शब्द ऐसे दिव्य

विश्वस करने से जो स्वयम्, दया, अदृश्य, त्रिप, सर्वज्ञ, सर्वशक्ति, और अज्ञेय है। जो अज्ञेय और एषिनी के रूप तथा पाताल का निवासिता है, जो आकाश, ओर सपुष्ट, पुरुष तथा स्त्री, पक्षी और मछली और सर्पिल शील जंगल, वृक्ष और नजस्वर्ग का निवासिता है और उन सूक्ष्म प्राणियों का भी उत्पन्न करनेवाला है जो उस की इच्छा और आकाश पालन करने वाले दूत हैं।
(Page 14)
अब हम की सम्प्राप्ति के मनुष्य के वैदिक भोग प्रेक्षा दिए जा सकते हैं। उदाहरण के लिये पर हम केवल दो एक को ही दिखाने हैं।
"सर्वप्रकाशपुत्रमन्त्राधिपति प्रजा" पाश्चात्त्य पूर्व मन्त्र-
मन्त्र "इति प्रजा गुलता" को दिखाने हैं। इसी प्रकार पृष्ठ १२ पर लिखा है कि ब्रह्म परमात्मा (जो हमारी नभ में प्रसिद्ध है) अपनी परमात्मा में तभी चिजित किया जा सकता है वेदों में भी बिल्कुल ऐसा ही कहा है - न तस्य प्रतिमा अस्ति यस्य नाम ब्रह्मेशः

इसी प्रकार कहा है। *God is all (पूर्णविद् पूर्णविद्) and by him are all things & all are to his will. Without him nothing has been or is, nor will be. For all things are to him, in him, & through him (कर्मिन् प्र-
तियोगिनिने प्रियेयु रित्यादि)*
हमारे वही सर्वभूतानाएँ पाए हैं निश्चय ब्रह्मा पः कहोती।

(२) अत्रादि तीन चीजें हैं : -
पैट्री ने अपनी पुस्तक "Egypthian religious philosophy" के पृष्ठ १४ पर लिखा है कि "But Cosmos is one, Soul is one, God is one. वेदों में प्रजा प्रजा से हम की गुलता की जा सकती है।" वा सुपलीसिपुत्र साराया सभानं वृक्ष परिवर्तनजो रित्यादि में तीनों प्रजा - परमात्मा तथा प्रकृति की सत्ता स्वीकार की गई है इसी प्रकार २०. ११४/४ में "हम। उपार्पित सपुष्ट प्राणिवेष सदा विश्व पुत्र निचय । तथा केन प्रजा पश्यमानितस्य प्राता रेबिह स उ रेकह मातरण ॥

(३) अत्रादि के अभाव में विश्वास :
इसी पुस्तक के ७५ पृष्ठ में लिखा है :
They believe in the immortality of souls, which

Came out of the most subtle air (सूक्ष्माणु) are united to their bodies as in prison and when they are set free they move upwards. अमर्त्यो मर्त्यो सपोत्रिः - इस श्रंग तन्त्रका पक्षी तात्पर्य है कि अमर्त्यत्व (आत्मा) मर्त्यावस्था (शरीर) के सापशक स्थायी है, इस में आत्मा को अमर्त्य बनाया है।

(४) पुनर्जन्म : —

मिस्री लोग सिरेसेरेफिट लोको की तरह Reincarnation के सिद्धान्त नहीं मानते बल्कि मैटेम्पसिचोसिस के मुख्य सिद्धान्त Metempsychosis (आत्मा का प्रत्येक पोरि में उन्नावगम) को ही मानते हैं, वे कहते हैं कि आत्माओं को पाप के कारण शरीर में कैद किया जाता है व पुनरात्मनः बिलग, विचली है। नुन पाप वाले नानी पक्ष पोरि में बली जाती है। पुनः त्वाएं अगले जंग में अवस्थित, पिबन्, ग्रापन्, ज्योतिषी, पक्षि बनती है। वह बात हमारे शास्त्र से दूसरी मिलती है कि

मैट्री मैटेम्पसिचोसिस "Here metempsychosis is fully stated, as in Plato, but it is not in the Egyptian form, and the indian influence appears - already at work."

पृष्ठ ४६, ४८.

रॉजेर में (१. १५४. ३२) में तो यह स्पष्ट ही कहा है कि "इस पादः इत्येति स्पष्टता ग्रीको इत्ये मर्त्योना सपोत्रिः ॥

(५) इन्द्रिय नाश रहित है : —

Matter can not be annihilated nor can space produce matter of itself.

मैटेम्पसिचोसिस में भी इन्द्रिय को नष्ट रहित बनाया गया है व

(६) पञ्च विधान :

मिस्रीयों की पुस्तकों में लिखा है कि अग्नि वह शिबीरपत बली है कि कहा तो बुद्ध में सुगन्धित पराध्व पड़ते थे और आज पाँस पड़ता है। यह बंधन कहा जाता है "धूपते हि धूपते नृणां जीविष्यः पशुः" इस तर्का अग्रे दूरी बुद्ध के वाक्यों से ही ना मिलता है कि मैट्री को स्वीकार किया गया कि ये निश्चित तौर पर भारतीय भाव हैं। ये हमने देवदरिन मानने के लिए प्रयत्न किया है।

हृदय

इस असीम सिन्धु को देखो, इस ने छोर का कहीं बता नहीं। यह अनन्त विस्तार वाला और गम्भीर है। इस की छाती पर हजारों सूर्य और तारा और चमासान-द्वारा खिलते हैं परन्तु फिर भी इस की शान्त स्थिति में कुछ झटका नहीं पड़ता। अद्भुत आनन्दपूर्ण हज़ारों नदियाँ इसमें बह कर निज अद्भुत छोड़ देती हैं तथा मिल कर एक ही जाती हैं। यह सिन्धु अद्वैत है - सारी नदियाँ अपने देहात्मन को छोड़ इसमें एक हो गई हैं। सिन्धु इनका परम स्थान है। यह अनन्त प्राणियों का जीवनदाता और आश्रयस्थान है। सम्पूर्ण शरीर एक किन्तु इसमें सुरक्षित हैं।

• + + + + + •
ओह! यह निर्दिष्ट हृदयस्थान, सिन्धु सैकड़ों नदियों अर्थात् हजारों जन-पदपूर्ण पौधों को अपने विशाल उदर की भेंट करता है। लाखों छोटे मोटे प्राणी इस की शरण में आ कर भी प्रतिक्षण अपने ही बड़े और बलवान् जन्तुओं का कुछ मन रहे हैं। शरणार्थी की रक्षा

न करना कितना असह्य बात है। यह सिन्धु कितना कुरिः है - क्योंकि इस की कुरिलता की भी कहीं सीमा है? निश्चिन्त; जिस तरह इस का परिमाण असीम है उसी तरह इस की कुरिलता भी असीम है। यही कारण है कि यह स्वयं असीम प्रक्रियाओं से इतना अधिक विस्तृत रहता है। ऐसी अवस्था में यह स्वाभाविक ही है कि यह शान्त आनन्दपूर्ण वर्णजन्तु के शीतल चरणों की ज्वार के बहने से धीरे धीरे लोभित हो।

• + + + + + •

यह मेरा हृदय सिन्धु इस सिन्धु से कहीं विशाल है। यह कौट-सिन्धु मेरे हृदय-सिन्धु की अत्यन्त महान् कृतियों के सामने एक छोटी सी कृति के समान है। और अब मैं करने से कुछ नहीं देखता, और खोलते ही छोटी से छोटी तथा महान् से महान् वस्तु भी आप-क्षेत्र में देखने लगती है। बस, बास धनु बन्द कर अन्दर की दृष्टि खोलें - तब गगनचुम्बी तथा चट्टानों की भी दो दृष्टि के देने वाली विभिन्न भावनाएँ लक्ष्य से अत्यन्त विस्तृत हृदयसिन्धु की विशालता, प्रीतिमयता तथा गम्भीरता का सम्पूर्ण परिचय हो जायगा

• + + + + + •

मैं सभी धन्य हूँ - जब मेरा
यह अशान्त और मिथुन हृदय-
सिन्धु शीतल चन्द्र के समान शा-
न्त और आनन्द स्वरूप योगी के
चरणों के लिए लालाप्रिय है
शान्ति लाभ करे।

• + • + • + • + • + •

हे भुव भुव ! तू इस
मेरे हृदय-सिन्धु को खराब स-
मझ कर इसे टोपी तिगाह से
मत देख। खराब होते हुए भी-
यह श्रेष्ठ वेम-भक्ति आदि
अमूल्य और अमृतकृत रत्नों
से भरा पड़ा है। हे नीच पु-
न्य ! तू ने खारे पानी से क्या
करना है - इस के रत्नों
से अपनी कोली भर कर ध-
नी क्यों नहीं हो जाता !

अन्त्यः

लीन

मह धीर तथा कृष्ण शशीन्द्र
और इन अनगिनत तारों को साथ
ले सफेद दिन में लीन हो रही
हैं।

— : ११११११११११११ : —

यह चमकीले दिन दिनकर
तथा दिनकर से प्रकाशमान -
इस दिन अय्यन को साथ ले
माली रात में लीन हो रहा है।

— : ११११११११११११ : —

ये सब वेगवती नदियाँ अपने
साथ जल की आश्चर्यजनक म-
नोर जल-की शशी को ले अनन्त
समुद्र में जा कर लीन हो जाती
हैं।

— : ११११११११११११ : —

प्रत्येक कार्य अपने कारण में लीन
हो रहा है तथा प्रत्येक कार्य अपने
कार्य में लीन हो रहा है।

— : ११११११११११११ : —

कहो नर कौन मनु है जिस
में यह सब कुछ लीन हो जाता
है ?

अमङ्गलान्त

१. गुरुकुल में, आज कल, कविता का अत्यन्त गहन सा दीख रहा है। शायद कविता की बीबी भी १६२५ सन् वाली भीषण बाढ़ ने गिरा दी है।

२. संस्कृत साहित्य की पावन साया भी, अब, गुरुकुल में ही खिली असम्भव ही जान पड़ती है। हाय! निर्दय बाढ़ ने इस गरीब घर की अयना राध साफ़ करने से तनिक भी संकोच नहीं किया।

३. पत्र पत्रिकाओं में, आज कल जीवन नहीं रहा। उन में उत्साह की निराली छत्र का अब सर्वथा अभाव है। शायद पत्र-पत्रिकाओं की सुकीमल तपस्व नन्हे २ बोंबों के लिये-आज कल शरद ऋतु का आगमन हो गया है - ज्यों कि अत्यन्त शीत से ये पत्र सूख से गये हैं देखें, फिर कब हरिबाव ल आते हैं।

४. आज कल छोटी-बोली-बड़ी-ब-सभाओं की दृष्टि बर्कभटु में उत्पन्न गजाओं के देर के समा न दिनों दिन बढ़ती ही चली जा रही है। शीघ्र ऋतु में इतनी अधिक दृष्टि का होना, निस्सन्देह आश्चर्यजनक है।

५. संस्कृत की "दिव्योष्णि" नामक नामी पत्रिका, जादूगर के ताश की तरह आकार में क्रमशः छोटी ही छोटी होती चली जा रही है। उर है कि कहीं, अन्त में, न छोटी हो-ते २ अक्षर ही न हाताग ईश्वर इस की रक्षा करें।

६. महानिवालापीय "संस्कृत-साहित्यी" ने इस बार के संस्कृत-कवितासम्मेलन में सादगी का आदर्श स्थापित कर दिया है। यह पहला ही मौका है जब कि गुरुकुल के असली सादगी के आदर्श की इर्ष्य करने का असक क्रियात्मक अत्यन्त कि भाग्य है। "जय हि"

७. ७ =

संसार के महान् पुरुष

एक ज्ञ. लेख के अतिरिक्त
सम्पादक, महाशय, G. H. Welles ने
जो कि वर्तमान युग के सभ से नये
होने लिकों में माने जाते हैं, के
बाद गये तथा उन से संसार के
भूत-भविष्य के वर्तमान के सबसे
नये छः आदर्शों के नाम
बतलाने की प्रार्थना की। सभ
एक महाशय के दृष्टि पर उन्होंने
ने निम्न लिखित छः व्यक्ति-
गिताए। इन छः में भी सब से
बड़ा नाम उठा ने Charles का
लिखा। ने नाम, मे क. महाशय
से हैं। —

१. ईसा
२. भगवान् गुरु
३. अशोक
४. वेकन
५. लिङ्गन
६. लूथर

जिस समय महाशय G. H.
Welles ने ईसा और गुरु इन दो
अर्थ-संस्थाओं का नाम लिखा तो

सम्पादक महोदय ने, १. स्थापना के
संसार, कि यह शुरुआत करें कि
"ज्या धर्म-संस्थाओं की दुनियां
में सब से बड़े होते हैं। इस तरह
तो हजारों मुहम्मद भी आज की
दुनिया में इन छः बड़े आदर्शों
में से एक हैं।"। यह सुन कर
G. H. Welles ने मुहम्मद के विरुद्ध
ब्रिटीशों बाते कर उनसे ओर कहा
कि मुहम्मद में मेरी तानिक भी
शुद्ध नहीं है। मैं ने बहुत चाहा
कि किसी तरह मुहम्मद में मेरी
शुद्ध उल्लान से गुरु मेरा मन
शुद्ध करने से हर बार कहता
करता है।

उस के आगे महाशय G. H. W.
ने भी भारतवर्ष के सम्राट् अशोक
का नाम लिखा। इस पर भी सम्पादक
के महोदय ने पूर्ववत् जवाब दिया
कि "ज्या = बड़े २ विजेता
बड़े आदर्शों में शुमार हैं।"

इस पर उन्होंने निरुद्ध नहीं, मैं
मेरो लिखन की बड़े आदर्शों
में शुमार नहीं करता। सम्पादक
महोदय में अशोक का नाम तक
भी नहीं सुना हुआ था। — इस लिखि
इन्होंने बड़ा आश्चर्य जाहिर
का। इस पर G. H. W. ने अशोक
के गुणगान कर उन्हें समुच्चरिका

करके दूरे आसमाजी गये।
अमने काफ़ी से महर्षि का नाम
संसार (वर्त) निश्चित करने हैं।

शुद्धि:

हिन्दू संगठन पर बहुत आशेष होते हैं। स्व
 और तो हमारे कई हिन्दु भी इसका विरोध
 करते हैं। दूसरी ओर मुसलमान तो सामाजिक
 तथा इस के विरुद्ध हैं ही, जो कि ने को अपना
 भला ही इसमें समझते हैं कि हम जिस तरह
 भी ये हिन्दुओं को अर्थात् बाकिरों को नष्ट कर
 अपने धर्म प्रचार करें। जहाँ तक हम इन को
 अपने धर्म में ला सकते, वे आगे और जो हमारे
 धर्म को स्वीकार न करें उनका नाश करें।
 इस लिए पहले से ही उन्हें ने हिन्दुओं को मुस-
 लमान बनाता प्रयत्न कर रहे हैं। इस लिए
 हम स्वयं देख रहे हैं कि हमारी जाति का बिलग
 हो रहा है। अब अभी कुछ सालों में हमारी
 संख्या २ लाख कम हो चुकी है। अब मुसल-
 मानों की तथा ईसाईयों की संख्या दिन-प्रति-
 दिन बढ़ रही है। हम मुसलमानों को बचाने के लिए
 ईसाई तथा मुसलमान हमारी धर्म-प्रचार
 करा रहे हैं। कूओं में गोश उलट कर अपनी सं-
 रक्षा कर रहे हैं। अब हमारी संख्या इस समय

एक अकार की तरह है जिसमें से धर्म ले
 रहा निष्कलता रहता है पर जिसमें एक बैरी
 भी नहीं आती। बैरी वह अकार एक रक्षा नि-
 लकुत रहती है जाता है उसी प्रकार-युद्ध पर है-
 हमारे हमारी भी यह जाति-जा हा में हो-
 अपने सब कुछ सम्पत्ति संस्कृति आदि के १५
 होने के साथ मुसलमान हमारे के धर्म १५
 कुछ विद्वान् अत्याचारों के नाश भी अपना-
 आचार्य अब भी बनाये हुए हैं नष्ट करी अन्य-
 जातियों में समा कर नष्ट हो जाय। जैसा कि
 हमने जैसा करते हैं कि मुसलमान ५० लाख-
 हिन्दुओं को अपना लेगे क्योंकि आगे में उनका
 बचने की शक्ति नहीं है। अब अब भी आप को
 हिन्दू संगठन के लिए आवश्यक सुझाव दें।
 धर्म में समर्थ है। मेरी तो सम्मति यह है
 किन्तो हिन्दु जाति के बचाने हैं, उसकी उन्नति
 की आवश्यकता रखते हैं, अपने हिन्दुत्व पर
 अभिमान करते हैं। उनको सुनिश्चित बा विरोध
 होकर जाति की रक्षा के लिए अग्रसर-

रोना चाहिए। शुद्धि ही हिन्दू संसार का एक मात्र उपाय है। इस के बिना हमारी हिन्दु जाति एक समय नष्ट प्राय हो जायगी। केवल मुसलमान भी तो नहीं पण्डु क्रांति से बाधे भी तो इसका निरोध करने में कसर नहीं छोड़ते। उनका मत यह है कि यदि से हिन्दु मुस्लिम एकता जो कि हमराज प्राप्ति का एक साधन है - के बिना ही काम होता दिखाई देता है। पर मेरी तो सम्मति यह है कि बिना मुस्लिम एकता हो ही तब सम्मति है जब कि दोनों बल में समान हों। जब तक दोनों बल में समान नहीं तब तक एकता सम्भव नहीं है। किसी व्यक्ति ने भी जैसे कहा है: "समान शील व्यक्ति ही सम्भव"। मुसलमानों को बताना कि वह हिन्दुओं से एकता करते हैं जो बलहीन हैं वही भी ही मेरी ही आनन्द प्रकृति होती है जैसे किसी व्यक्ति ने कहा है "भगति ही मेरा सुखदायक दानिना"। मोची जी के इस शब्दों से स्पष्ट है कि हिन्दु बलहीन हैं तथा यवन

बलशाली हैं कि "Hindus are cowards and Muslims are bullies" अर्थात् हिन्दु बायर हैं। यह तर्क करते हैं कि हिन्दुओं का संगठन २५ में नहीं सकता है जो प्रगतिशील बनाता असम्भव है पण्डु में यह कहता है कि जब शिक्षण के योग्य के योग्य, आर्य, स्वेद आदि विना २५ में बसे एक हो सकते हैं और मुसलमानों के शिक्षण सुनी आदि संस्कार बल से एक हो सकते हैं तो क्या एक आर्य और एक मुसलमान बल से ही अपनी जाति की रक्षा के लिए एक नहीं हो सकते हैं? हो सकते हैं और अनवरत हो सकते हैं। जब बारम्बार मुसलमानों से सताये जायेंगे तब स्वयं मिल जायेंगे और तब हिन्दु संगठन हो जायगा। यदि अभी तक हमने किसी भी हिन्दु को अपनी उन्नति नहीं की तो समयान्तर में स्वयं हम चेतने में और फिर इसी बात पर आगे मेरा तो यही निष्कर्ष है। यह स्थिति पर स्पष्ट यत हिन्दु बलहीन हैं पर उससे भोगने वाले मुसलमान होते हैं। इस से स्पष्ट है कि मुसलमान हमसे हैं।

हमें सुदि दूख उने का उपाय बरहा चाहिये।
 कई कई दिना करते हैं कि पहले सुदि नहीं-
 होती थी और हिन्दू संगठन नहीं था। पहले
 में हिन्दू संगठन के विषय में बहुतों के यदि
 पहले हिन्दू संगठन नहीं था तो बहुतों के
 इसादिस अशोक जैसे ब्रह्मवर्ती राजा ३२५/
 ३३५ अदि हम वेद पर ही दृष्टिगले तो हमें
 स्पष्ट पता लग रहा है कि पहले जमाने में
 सुदि होती थी। यह पाश्चात्यों के कथनात्
 साद गृह्य पहले बने नार्वेद के हैं मध्यत के
 ६३ सूक्त धूर्ने मन्त्र "कृष्णतो विद्वत्तमर्गम्"
 इस से स्पष्ट है। महाभारत को ही नीजिह
 निरु में स्पष्ट तौर पर लिखा है "गणिक-
 गार्ग्यन्तो नैरिह्यमहाभुनिः। तवरा
 बाभलो जातः संस्कारस्तनः कार्ग्यम्"
 नसिह्य जी का गेता अब ब्राह्मणों में पवित्र माना
 जाता है इस से स्पष्ट है कि उन की १५ दूर्ध्व
 होगी। काराशर तथा व्यास जी को लीजिए
 उन के निरुप में भी एक श्लोक है--

आतो व्यासस्य देवर्षिः, इत्यन्त्यास्य पदस्य
 बहोऽन्येऽपि विपुलं प्राप्ता ये पूर्वमस्ति
 जा" व्यास जी को जन्म महाभ की पुत्री मेघना-
 मन्वा से होता स्पष्ट है। ने भी शा १२५
 गये होंगे यह भी सुदि के लिख प्रमाण है।
 जो पण्डे आमा विरोध किया करते हैं उन से
 सम्मत पुराणों को ही देखिए। अनेक पुराण
 प्रतिर्गर्त वर्ष २०४ ३४ अथवा २१ में लिखा है
 "सदस्वत्यासमा कर्णो मिथदेशमुपा-
 यमौ। स्नेच्छान् संस्कृतमाभाष्य तदा ब्रह्म-
 सरसकम्। सपत्नीकोऽयं तां स्नेच्छान् शूद्र-
 वर्णाय नाबरोत्। इत्यदि से सुदि स्पष्ट है।
 इसी पुराण में आगे "मिथदेशोद्भवः स्नेच्छा-
 काश्चनः सुशिक्षिताः संस्कृता शूद्र वर्णत
 ब्रह्मवर्णमुपागता, शिराया मूलं शरीरमात्रं पीडित
 नेदमुत्तमम्" इत्यदि से सुदि स्पष्ट ही है।
 देवताभुनि के धर्मशास्त्र में भी ३२३। ५ ५१-
 "बलादुसी कृतो स्नेच्छेऽप्यपलायैव दस्यु-
 मिः, अशुभं दारितं कर्म गन्तव्यमिति ३१५५

उच्छिष्ट भोजन ज्यों तथा तस्मैव भक्षणम् ।
 इत्यादि श्लोकों के अन्त में इन अति चोर तथा
 मन में से शाराचारिक भावों का एक एक लेप
 कर देने वाले पापों का प्रामादिक बतलाते हैं।
 इतिहास पर यदि गहरा गली जाय तो यथा नगता
 है। निपटें बिरेहों से कई दूध आदि जातियाँ
 आई तथा समय समय पर सिक्कर जड़ों आ
 झानेओं के साथ भी कई सुख आने लगे सि-
 न्ध में इस कहते थे और दुःख कहते थे।
 वे सुख और जातियाँ गहों की सम्भता में सुख
 मिल गई और अब उनका यथा भी नहीं चलता।
 इस से भी पुराने समय में इ. हि. के होना यथा
 लगता है। कुरुकुल आशोक का बौद्ध धर्म प्र-
 णाल इस बात का उल्लेख प्रमाण है। कुरुकुल
 का राजा सिन्धु नगर गत भी सुदृढ़ किया गया था
 जैसा कि शिता लेखों से पता लगता है कि वह
 भी था। इसी लिए उस के सिद्धों के एक ओर
 धर्म बद्ध पाया जाता है। मनुपुराण तथा मत्स्य
 पुराण से यथा लगता है कि कुरु भगवान्

के उपदेश को न समझ कर इस कठोर मनुष्यों ने
 कैरिद सभता हो ही इसके बाद स्वामी शंकर ने
 अमि वंशज शक्तियों की सहायता से शूल धारि
 कर सुदृढ़ उन को आर्म बनाया। इसी प्रकार
 ब्रह्म पुराण में भी "वृद्धे स्थिते च यूयोऽपि
 ब्राह्मणत्वम् गच्छति" और श्लोकों से इस-
 विषयक ध्वनि निकलती है। महाद्वेष
 को स्वतन्त्र करने वाले शिवाजी ने रामदास की
 आला से मुसलमानों को पीतु बना कर मारों
 में मिलाया था। बाजीराव निम्नालकर बीकानपुर
 बाहरा के दूतों में रहते थे। एक बार कि-
 न्तो कारणों से बाजीराव होकर उन्हें मुसलमान बन
 ना पड़ा और बीकानपुर बाहरा की हदों से कि-
 न्त भी दोगग। पर जब बाजीराव को पता
 चला कि तब उसने कीजिनाई से कहा। जो कि-
 न्त ने फरिदतार की मल्लख लेख तीर्थ में
 साधन कर सुदृढ़ किया। इस प्रकार कई अन्य
 भी प्रमाण सुद्धि की पुरातनता में दिये जा सकते
 हैं पर इतने ही काफी हैं। अतः सुद्धि कही जाय

311 1873/1 m -



“मीन व्यथा”

“ॐ अमृतं”

मीन व्यथा— देख ठंडा पड़े से पिछी हुई ।

उब उब उब नुं खिच खिच खिच कर रह गई ॥

आस जीवन की तजो रोने लगी ।

ओस से असुआन झडी तब बूझ ली ॥

देख यों अरमान दिल का है बना ।

उब उबाती ओस से मोती गिरा ॥

एक सारिषन गुंठ में उठा यों गिरा ॥

रघुनन्दा अतरा नहो अष्टतन ॥

इस तरह की मोदि... तब दे चुके ॥

खिल खिलती आस जीभुं चले लगी ।

बगुले का आगमन - फड़ फड़ाते पंख बगुला आगया ।

दूत यम का प्राण लेने के लिये ॥

दोहा- अयन नयन राब गार कर भच्छ ली हुई निराश ।

तउपर कर रह गई तुझी न दिल की आश ॥

बगुले की कहाती - देखे ऐठन ऐठन यूं को भी बना ।

इसो दे गुण बाद यूं गाते लगा ॥

मूल अफने की पंडा पर बह गया ।

त्रेणदा ओसू अचातक बह गया ॥

ओसू की बराबाल - देखते ही देखते जीव बन गया ।

मीन का घर ता बं ले जा बंध गया ॥

आँखों को ऊपर उठा झूठ सा मरी।

ईशाने गुण गाव में वरन दुई ॥

यूल चर बह लख व्यथ ये लिल गई।

रात फिर से चाँद को भीवन गई ॥

नयन से बहने लगी मोती खड़ी।

हो आभासी योगी के चरणों लगी ॥

नयुले का योग गंग- द्रोड़ निडा योग भीवह रोष से।

मोंच को अपनी सपना ले लगे गया ॥

बाढ़ उतने में नदी में आ गई।

देखते ही आँख ओझल हो गई ॥

नयुले के प्रति- दर्प से लेटा हुआ तू है चमकती रह गया।

अभयस जसा बर ले शिखार। गुंठ कोर ले गया ॥

दूर गई सब आशा खंड। आँख भी बहने लगी।

बहते हुए आँखर आवाज बजाती दातगा बनी ॥

करते हुए इन्क गुंठ आँखर सीप के गुंठ में पड़ी।

आँखर बहते बह बच बचाती बाँधी का मोती बनी ॥

बस एक आँखर के मोँही खट पन नलिनी के बड़ा।

फिर देखते ही देखते बह आप मोती बन गई ॥

नयुले को धन्यवा- ले सुझ तेरा आज योगी भी न दित से बर गई।

और दर्प की ले ठगन धरन के दूँ तेरी बर गई ॥ बह दित जलाती रह गई पर

दिल बह तुम को दे गई। शिखा गलाई भी तुम्हारे चित्र से बह ले गई ॥

सम्पादकीय टिप्पणियां बाह्य-जगत

१ आर्थिक समाज में शिक्षा

"आर्थिक समाज" नामक समाचार-पत्र में, महाशय देवी-चन्द जो. प्रमोद सिंह M.A., B.A. School, रोहियापुर, द्वारा प्रकाशित - आर्थिक समाज में शिक्षा की विवेक को अत्यन्त संक्षेप से उद्धृत किया गया। इसमें इसे अपने पत्र में संक्षेप से उद्धृत करते हैं।

"भारतवर्ष में कुल ६८८ शिक्षणालय हैं जिन में २५६० अध्यापक या कर्मक पढ़ाते हैं। इन शिक्षणालयों में सब तरह के कुल ५४,८८६ विद्यार्थी शिक्षा ग्रहण करते हैं। इन शिक्षणालयों के स्तर में प्रतिवर्ष १८,८४,५८२ (॥३॥) ११ स्तर होते हैं। प्रत्येक विद्यार्थी पर प्रतिवर्ष ३३.॥१॥ ११ स्तर होता है तथा प्रत्येक लड़की पर प्रतिवर्ष १६.॥८॥ २ स्तर होता है। इन सब पाठशालाओं के ध्यान आदि में कुल ८५,३४,२३८ (॥३॥) ११ स्तर हुआ है। कई पाठशालाएँ

समाज-मन्दिर में ही लगती हैं। इन कुल शिक्षणालयों में २८० High school लड़कों के लिए हैं तथा दो College लड़कों के लिए हैं; ८३ High school लड़कों के लिए तथा १ High school school लड़कों के लिए हैं; ६० middle school लड़कों के लिए हैं तथा ५२ middle school लड़कों के लिए हैं - इसी प्रकार ११४ primary school लड़कों के लिए हैं तथा १११ primary school लड़कों के लिए हैं। - - - - - ८ संस्कृत-पाठशालाएँ हैं; ८० हिन्दी-शिक्षणालय हैं। ३१ गुरुकुल हैं। ५५ अधूत गति-यों की संस्थाएँ हैं। इनके अलावा अन्य भी कई छोटी सी स्कोल-मार्ग संस्थाएँ हैं। इस के अगे महाशय देवी-चन्द जो लिखते हैं : -

सब से अधिक शिक्षा प्रकार - पञ्जाब में है जो इसी से उनको धर्म-परायणता प्राप्त होती है। यदि सब जनों के आर्थिक जीवन में पञ्जाबी के सदृश सन्धि-दिल से काम करने लगें तो सम्भव है कि भारत में वैदिक धर्म की

शिक्षण शीघ्र ही सम्पन्न हो जाय। पञ्जाब से दूसरे नम्बर पर शिक्षण का प्रचार दू. पी. में है।"

महाशय देवीचन्द जी ने यह रिपोर्ट तैयार कर के, निम्नलिखित हमें शिक्षण-निबन्धक समझाया।
 पर आसानी तथा गतिरता-धर्मिक विचार करने में सक्षमता दी है। हम इस समय इन समस्याओं पर विचार नहीं करता चाहते; केवल देवीचन्द जी के उपर्युक्त निर्णय पर ही अपनी सम्मति प्रकाशित करेंगे। महाशय देवीचन्द जी लिखते हैं कि पञ्जाब में इतनी अधिक शिक्षण का प्रचार होना इस बात का सबूत है कि पञ्जानी धर्म परामर्श है। हम पञ्जाबियों का धर्मपरामर्शता पर नुक्तानो नहीं करता चाहते परन्तु फिर भी देवीचन्द जी के कथन के विरुद्ध पर अवश्य करना चाहते हैं कि शिक्षण तथा धर्मपरामर्शता में कोई समानता सम्बन्ध नहीं है। *Frederic Englund* के विप्रति विद्वान *Herbert Spencer* किसी जगह अपनी पुस्तक में लिखते हैं कि साधारणतया सर्वसाधारण मायद निरक्षर है। वे पढ़ने लिखने या शिक्षण ग्रहण करने से शक्ती

में अधिक उन्नत हो जाते हैं। तथा वे पहले ही अधिक धार्मिक हो जाते हैं। परन्तु नास्तिक में देखा जाय तो यह बात सत्य नहीं है जो कि *Stallier* द्वारा यह जाना गया है कि शिक्षित लोग आचार में अनपक्व लोगों से अधिक गिरते हैं; हो, यह गुरु है कि वे लिखे लोग अपनी चुनौती के कारण गिरना को दिया अवश्य लेते हैं। हम *Herbert Spencer* की बात का भी समीक्षा में सत्य नहीं मानते। परन्तु उन की बात आजकल की शिक्षा के निष्पक्ष में स्वयं में १५० और भी है।

उपर्युक्त रिपोर्ट से पता चलता है कि भारत वर्ष में ३३ फीसद लोग पढ़े हैं। निम्नलिखित इतने निम्नलिखित परिस्थितियों में होते हुए इतना सख्या में फीसदों का चलना अत्यन्त जाश्चर्यजनक है। क्या इस से यह स्पष्ट सिद्ध नहीं होता कि भारतवर्षी गुरुकुल जैसी संस्थाओं के लिये जुदा उपजाऊ है? केवल, अब, ऐसे साधनों तथा तरीकों को दृढ़ निश्चालने की आवश्यकता है जिस से गुरुकुल की शिक्षा अत्यन्त सस्ती तथा गरीबों को भी प्राप्य हो सके। ने न्या

उपाय है - इस वर हम किसी आखि अङ्क पर अपने विचार प्रकाश करेंगे।

२. तो बाल का कार्यक्रम

शास्त्री मोक्षान के कारण ही शायद कई महाशयों को आर्य समाज का पहला से ही तो बाल का कार्यक्रम बनाने की दृष्टि है। वर विचार में यह बाल आर्य समाज की जन्मति के लिये अत्यन्त लाभप्रद है। तबसे प्रथम-तत्काल हमारे प्रयोग उपायों की वे केवल ही हैं जिन्हें वे कि बड़े विचार वर्क आर्य समाज के शत मासिक कार्यक्रम को हमारे सामने उपस्थित किया है। आशा है कि छोटे बालों के बालों की दृष्टि से ही कार्यक्रम-विचारों की अत्यधिक दृष्टि हो जायगा। इस नवीन विचार के जन्मदाता निम्नलिखित सुझावों की हैं। इस वर्गित जी के कार्यक्रम को अतीत संशोधन से नीचे लिखते हैं।

(१.) १५ वर्ष - देश की स्वाधीनता प्राप्त करना।

(२.) १० वर्ष - स्वराज्य स्थापना तथा शासन प्रणाली को वैदिक धर्म के अनुसार करना।

(३.) २५ वर्ष - सर्वज्ञ शिक्षा प्रचार।

(४.) २० वर्ष - वैदिक विचार निर्माण।

(५.) वैदिक सभ्यता के अनुगत राष्ट्र संगठन, तथा आश्रम सुधार।

(६.) २० वर्ष - वैदिक समाज को अनुगत राष्ट्र संगठन - वर्गीय सुधार।

वर्गित जी के उपर्युक्त कार्यक्रम के साथ साथ 'वैदिक सभ्यता' है परन्तु हमारी इस कार्यक्रमात्मक सभ्यता पूर्ण सरासरी नहीं है। वे जी के इस बात को अच्छी तरह जानते हैं कि भारत वर्ष में केवल आर्य समाजियों का ही विवास नहीं है अपितु निम्न २ प्रजातन्त्रियों का यह घर है। केवल सभ्यता प्राप्त करने से ही यह आचार्य कर लेता कि आर्य समाज राष्ट्र के वैदिक आदर्श के अनुकूल चलाने में समर्थ हो जायगा दुःखसाध्य ही है, यह बात सम्भवतः समझ लेनी चाहिये कि जिस सभ्यता को जितना समय मिलेगा में लगा है उतने के लिये उस में भीन्द्र गुण समझ लेना। इस तरह यह कार्यक्रम १०० साल में पूर्ण हो कर १००० साल में भी १००० प्रद सुविकल से ही हो हो।

हो, इस वर्गित जी के प्रथम १५ वर्ष के कार्यक्रम से पूर्णतया सरासरी है। निम्नलिखित, यदि आर्य समाज स्वराज्य प्रगति के निराल को स्वीकार कर भारत को स्वराज्य दिलवाए तो यह सर्वोपरि हो जायगा - आर्य समाज का प्रथम नाम होगा - इस का बहुत प्रचार होगा।

'यह बात देखें' यह कहनी है कि

सम्पादकीयटिप्पणियां गुरुकुल-जगत

जिस तरह ग्रीष्म ऋतु में नहरों का पानी दिनों दिन बढ़ता ही चला जाता है उसी तरह गुरुकुलीय छात्र भी ग्रीष्म ऋतु में ही अपना तेज उलति करती हैं। उस वर्ष भी अन्य वर्षों की तरह समग्र बहुतांश स्थल सफलतापूर्वक चल रही हैं। अभी तक तो उपस्थितों की अन्तर्गत की उपेक्षा अधिक हो जाने के विप्लव की संभावना, विप्लव के इस स्थाप से उठ जाने के कारण, अपना काव्य महारिश्ता की संभावना पर नहीं उल सकती। पर चारों महानिष्ठान की संभावना के लिये ध्यान दे रहे हैं। इस नीचे प्रत्येक महारिश्ता के लिये पर १५५ २ १५५५ ३५ का विवरण दे रहे हैं।

आर्य-सिंहान परिषद

इस में सभा के सन १९५५ के कार्यकर्ताओं का गलितवर्षीय से निर्दिष्ट किया है।

१. मन्त्री = ज. चरमवीर मन्त्री संस्थानों से निर्दिष्ट।
३५।

२. गुणमन्त्री = ज. शृणुनिन्द कर्मचारी से निर्दिष्ट।

३. कार्यकारिणी के सदस्य = मन्त्री और गुणमन्त्री के अति-

रिक्त ज. मुखदेन, ज. चरमवीर १९५५ ३५।

- ये तीनों कार्यकारिणी के सदस्य हैं।

कार्यकारिणी के निश्चय के अनुसार - न. जयदेव, "आर्थसिद्धान्त" -
पत्रिका" सम्पादन निर्वहित हुए तथा छ. पूर्णनन्द, उपसम्पादन
निश्चित किये गये।

वर्तमान अनुस्थाओं को देख कर निश्चय होता है कि आर्थ-
सिद्धान्त-परिषद् के सम्मेलन अधिनियम वरीयों की अपेक्षा बहुत
सफलतापूर्वक होगे।

साहित्य-परिषद् :- यह सभा अन्य सभाओं की अपेक्षा स्थिति
के लिहाज से कुछ कमजोर जाती है। इस सभा की ओर से "पुरु-जयन्ती"
मनाई गई जो सफलता पूर्वक समाप्त हुई। हाल ही में साहित्य-परि-
षद् में श्री पण्डित लाल शर्मा जीक विचारधारा का "कालिदास"
यह अत्यन्त प्रोग्रेसिवा सम्यन् तथा श्रेष्ठतापूर्ण निबन्ध हुआ। अभी
यह निबन्ध समाप्त नहीं हुआ। इस निबन्ध की श्रोतृवृत्त ने
श्रद्धा प्रशंसा की। इस से सभा की उत्तति सूचित होती है। आशा
है कि यह सभा कुछ होती हुई भी युवा की तरह जोश से अ-
पना कार्य सम्पादन करेगी।

संस्कृत-साहिनी-सभा :- इस सभा के निबन्ध में इतना ही कहना
है कि ऐसी स्थिति निराशाजनक है। मन्त्री जी प्रत्यक्ष उत्साही तथा
पंम्...वार्ध है तो भी इस सभा की गिक स्थिति करने के लिफ्टि
निश्चि प्रयत्न करना चाहिये। यह कमजोरी या झील बाले की
है नहीं नही। न. समरसिंह जी इस सभा के मन्त्री यह वर नियु-
क्त हुए हैं।

वित्तिकी समस्या :- इस समस्या का यह होना कि हमें पता है कि इस वर्ष उत्साही तथा कमविद्यमान कार्यकर्ता आएंगे होते रहे हैं। नारा देना की वर्तमान परिस्थिति में भी, निश्चिंद, इस की सकलता में कारण है। अन्य वर्षों की तरह, इस वर्ष भी इस के अधिवेशन सकलता में ^{के अनुसार} हो रहे हैं। इस वर्ष में इस समस्या की वास्तविक सकलता, राह ही में होने वाले "हिन्दी-सार्वजनिक सम्मेलन" की सकलता से ही से लगेगा।

इस वर्ष इस समस्या के मन्त्रिमं पर न. शूरेदेन द्वारा शब्दों तथा उद्योगों पर न. समस्त रूप की द्वारा शब्दों के द्वारा हैं। इस प्रकार कारण न. इस समय न. समस्त रूप की ने ही मन्त्री के समर्थन की सम्मेलन हुआ है।

विज्ञान-परिषद् :- विज्ञान परिषद् का कार्य तथा उत्साह शब्दों में है। कई वर्षों से इस समस्या में फिर से न. जीवन का लाना हुआ है। इस समय यह समस्या किसी अलग समस्या की अवस्था में जोड़ से नहीं चला रही। प्रतिस्थापन का प्रतियोगिता कोई न कोई योग्यता की निबन्ध हो ही जाता है। इस के अधिवेशनों में अवस्था में भी क. गति होती है।

इस समस्या के मन्त्री न. ओ. शूरेदेन न. निम्नलिखित हैं। इस परिषद् का प्रत्येक सम्मेलन ही, इस की न. कार्यकर्ता का भी सम्मेलन होता है।

आयुर्वेद परिषद् :- यह परिषद् आयु के लिए से लाने से है वरन् अपने कार्य तथा उत्साह के कारण किसी कदम किसी समस्या से जवानी में कम नहीं है। इस की आशाएं बहुत बड़ी हैं। दिनों दिन यह समस्या उन्नति करती ही चली जा रही है।

इस संकेत की नीचे प्र. विष्णुकिरी की लिखित उद्देश्य है। इस संकेत के सब सदस्य को कर्मविवरण तथा उत्साही हैं। इस लिखे इस संकेत का अधिकतम बहुत फलान्न जान पड़ता है।

कुछ दिन पूर्व ही, आर्चबिशप वरिष्ठ का जन्मोत्सव, जिसकी संस्थापन की शीघ्र ही श्रेणी के सम्बन्ध में, बहुत सफलता पूर्वक समाप्त हुआ है। कमिटीओं में 'वैयक्तिक-सम्बन्धी' नहीं होता - उन में सार्वजनिक छुट्टी का सर्वथा अभाव होता। स्वाभाविक ही था। वसिष्ठ में इस संकेत के सदस्यों में कुछ और उमर दोनों तरह के अनेककर्मि विद्यमान हैं। पर इस संकेत के लिखे को गौरव की बात है।

English Club :- गुरुकुल के शीघ्र उद्देश्यों तथा परिस्थितियों के कारण English की सर्वथा उद्देश्य होती-रही है। यहाँ का है कि इस संकेत ने अन्य संकेतों की तरह नहीं जोड़ नहीं करती। परन्तु अब यह आवश्यकता अनुभव होने लगी है कि आग. लक्ष्य का अच्छी तरह से शिक्षा तथा मर के लिखे अत्यन्त आवश्यक है। अतः English Club के लिखे अब अच्छा क्षेत्र तैयार हो रहा है। अगला है अब यह संकेत अपनी वयाधि उत्पत्ति करेगी।

इस इस संकेत को सम्मति देते हैं कि 'प्रति' (या संकेत) साप्ताहिक या वार्षिक कोई वन प्रकाशित करे तो बहुत उत्पत्ति को सम्मानना है।

आजका ओ३५

समय विभाग

बृहस्पतिवार

२०-६-८२

६.३०-६ तक राष्ट्रीय गाने की स्थापना . अन्ते गलत है , कुतर्कित

खिले —

प्रश्न:

७ से १० १/२ तक

सुरक्षी रौंड

जादू रंग की रौंड (उपगत गण)

न्याय . १ . रौंड १

कैप्टन रौंड

भारी रौंड

अन्तः ५.५

मध्यम रौंड

२ १/२ . १

लम्बी रौंड

जुंजी रौंड

रुपया रौंड

ताकिया रौंड

तेरी रौंड

बोरी ५

सब कुलवासियों को सूचित किया जाता है कि दीपावली के उपलक्ष्य में खेलों का समावेश दिया गया है। आप सब महानुभावों से ग्रहणा है कि इसको सफल बनाने में सहयोग दें।

समय विभाग निम्न प्रकार है—

१० - ६ - ८२

बृहस्पतिवार

प्रतः ६-४५ से ७ तक राष्ट्रीय भण्डे की स्थापना

बन्दे मातरम् और तुलसीत

७ से १० तक

मध्याह्नोत्तर

बनना राज का ही कार्य है - इसी प्रकार -
बननी इच्छा है मही तबही है मरुतसे
सतने कल्पनामय आतीशान्तकान्त रवरे-
करना कल्पनाशक्ति या मत का ही कार्य है -
यदि दिन की महाभारत का कुछ पढ़ते हैं -
तो मन में इसी के संस्कार ताते ही हैं -
और मर स्वप्न में जबही दिया सलाई से -
औरनों की सेवा को जलायगा। यदि आय-
माय स्वीय में तत्परा देखा कर ली है -
तो भी के तत्परा का जलती आग से स-
न्ध जुड़ जायगा। यदि आय दिन मर-
सोते की मोह में रहे हैं तो आय का मत
आय के आगे आकाश से सोते की वषा-
भी कर सकता है -

एवं भीमी के चलती हवा आब के-
स्वप्न वही क्रिया से मत मर बदे ताकी-
प्रभाव के अनुसार सारा में बरे सुकर
प्रकृत, पारस्परिक प्रतापय आदि के-
उप दिखानेगा। इसी छिट हगरे बड़े
मर विचार है कि सोते समय प्रात-
मन्त्र जाय आदि करी कटिमें ताकि संस्कार
उत्पन्न हों - उन उत्पन्न संस्कारों से आय-
स्वप्न में भी तत्परा के वेद पाठ का उ-
पक्रम सुनि - अहोरात्र गाते का गहें।

इस प्रकार हम साधारण स्वप्नों के
तीव्र कारणों से बला कर सकते हैं।

यह बड़ा अनुभव (१) आत्मिक अनुभव

(१) मत मर बदे ताकी और प्रकाश संस्कारों
के उत्पन्न।

अब प्रकाश एक ही प्रकार का है -
से भिन्न से भिन्न तरह के सकात आदि-
कर जाते हैं एवं एक ही प्रकार के बह-
और आन्तरिक इन्द्रिय जन्म प्रगति से नाता-
प्रकार के अन्धे बुरे स्वप्न आते हैं - इसकी
विशेष व्याख्या में बह न करने की -
नाशित है बर इसमें आय स्वप्न सोच-
सकते हैं।

अब शेष एक समझा रह जाती-
है मर मर - कि एत नरुत से सज्जी सम-
चार स्वप्न में मिलते हैं मर जो -

आमने बुना होगा कि सज्जी स्वप्न-
जाय, रात के भेदों में आते हैं।

में पढ़ते शब्द के पांच भाग मर-
आया है - प्रथम वसु, द्वितीय विष्णु, तृतीय
इन्द्रिय सुषुप्ति, चतुर्थ स्वप्न, पंचम जागृति।

स्वप्न की अवस्था सुषुप्ति से पढ़ते हैं -
भीष्टे योगों समय है - प्रथम अवस्था के-
स्वप्न प्रातः जाग्रत अवस्था में मर की गति
के अनुसार होते हैं - सुषुप्ति में अनन्तर
मर पढ़ी गति न विविक्ष कस हो जाता
है - बहूधा नहीं भी होता। इस समय
मर अधिक विद्युत् होता है - इस अवस्था
में यदि बाहर कोई भाव प्रकट मर रहा
हो तो उसका प्रभाव ही कुछ होगा।

आज कल की शर्तों से यह सब कुछ
 गया है कि विचारों की भी बाध है
 या फिर एक स्थान से दूसरे स्थान
 पर जाती हैं - मैं यदि चाहूँ कि विचार
 यथादि किसी अपने दूर में से निज से
 उदाहरण तो प्रमल विचार से बुला सकता
 हूँ - वं. देवदत्त जी सुनाया करते हैं
 कि - एक बार उनके मन में यह विचार
 आया कि मैं अपने बुद्धि को कितने जगह
 उनके इस विचार ने बहुत तेज किया - ओह
 में क्या किसी यथादि के अनेक जगह
 जब नहं चहुँपे - उनके बुद्धि ने कहा
 कि मैं उसको बहुत मद कर रहा था
 पर सब मालूम न था। इसी प्रकार अन्य भी
 को बहुत से उदाहरण मिलते हैं जिनसे
 यह विचार प्रचार का शिष्टान्त मानना
 पड़ता है।

मन बहुत चञ्चल चीज है - स्थायि-
 रण तथा मनुष्य का मन कितनी परि-
 स्थित बलों में लगा रहता है उसकी -
 प्रमलता के कारण इस प्रकार के दूर-
 गत विचारों को इससे मिलने का अव-
 सर नहीं मिलता। बुद्धि ने अनन्तर-
 मन को कि - वह उन परिस्थित विचारों
 में लग रहा है अभी नहीं भी होता -
 इन विचारों को मन से मिलने का अव-
 सर मिलता है - इसी से हमेशा

सबसे स्वयं में बहुत से स्वप्न स्वप्न-
 भ्रम होते हैं -

कितना हमारा मन अवस्थित होगा
 है और कुछ होगा - उतना हमें वे स्वप्न-
 स्वप्न अधिक आँगे अनेकाने के स्वप्न-
 स्वप्नों के ॥

बगुला बनामाला

देखो गणितकार की इसकी बुद्धि ने कहा
 कि वे गणितकार का बगुला बना गया है।

बगुला बनामाला - जल रोहीत घूटी।
 घूट कहाँ से जगह जगह की आँखें घूटी ॥

कितने पाप पर जन्म प्राप्त जिनके स्वप्न
 पाप जगह पर, दुःख, घरे है कथा ॥

"शक्ति"



नवयुवकी !

संसार के अनेक देशों के इतिहास के अनु-
शीलन करने से स्पष्टतया पता चलता
है कि उन देशों के अनुप्राय में अभा-
वतव्य अति और अवसति किन्तु भी
उस के द्वारा ही तत्कालीन तद्देश-
पुत्रों का बड़ा भारी हाथ रहता है।

जिस देश के युवक स्वभावतया ला-
रणी वस्त्रिणी उद्योगी, और कृषि
मोते हैं उसका अनुप्राय स्वयं ही उ-
द्योगी और जिस देश के युवकों में के-
न्द्रीय-परा उद्योगिता, गिरि-परा-
चिन्तालिता एवं अन्धान्त्रिक अज्ञान
है उसकी अवसति के लिए दैव स्व-
यं भी कदम बढ़ाता है। इन निष्ठ-
वि कोई देश अज्ञात बना गलाहट
तो उस के युवक उस की औद्योगिक
उन्नति तथा कलाकौशल भी ह्मा-
नता तथा उस की मौखिक दशा में अ-
पने आप को समर्पण करने के लिए
तैयार हो जाते।

भारत के नवयुवक गण/ इराक देश की
शूलत का एक बड़ा भाग है। अतः इसे
भी लक्ष्मी की किसी उपाय की गति-
से वञ्चित न रहना चाहिये। भा-
रत के युवक पहले एक अंधकार
मग्न गति में गिरि-परा थे। किन्तु

समय की गति ने उन को दो कदम आगे-
गढ़े हैं बाधनिकले आंखें मलकर देखा
संसार बहुत अगले निकल गया है। भा-
रत युवा कि आगे लक्ष्मी में गिरि-
परा है तो आत्म-मौखिक और आत्म-
उन्नति की दशाकाली होगी- बिना
आत्म-मौखिक और आत्म-उन्नति के-
जीवन मग्न ले भी गिरि-परा है। जब इनके
अन्ध एवम्भी की उन्नति और मौखिक
को देखें तो स्पष्टतया मालूम पड़े-
गा कि इनके लक्ष्मी में गिरि-
परा है। स्पष्ट स्पष्ट मालूम प-
ड़ेगा कि इन परतन्त्र और
गुलामी हैं। इन्धन तलमला उठा-
व के मत में यह बिना एवम्भी जी-
वन गुलामी है। इस दशा का के बंधनों
को किन्तु उन्नति से तोड़ा जाय इस
गुलामी के तलम ले के ले निकला
जाय — यह है वह दशा दश-
क है कृष्ण - कर्ष कोये हुए हैं
प्रताप और श्री शिवाजी-
इनके में ही एक गाना मेरी आवा-
ज ने लक्ष्मी को औद्योगिक, नर-
की ही/ भारत के युवकों/ उद्योग युवकों
मद का यदि शासकों भी यह आ-
जवे तो वह मदकारी हैं उद्योग
लक्ष्मी, एक और कृष्ण लक्ष्मी
में हैं शिवाजी और श्री प्रताप
कृष्ण ही अन्ध हैं उद्योग

उस ओं अपनी अपनी जन्मभूमि के म-
 स्थानों के का दो। १८ वर मजि-
 हो पड़ी तुम्हें लिए सबसे बड़ा
 छुड़ है। १९ में भेष है, उर जाओ
 क्या तुम पर सदा का जकते हो कि
 कि तुम्हारी गद्गद जाति अपने एक-
 प मान ओं राष्ट्रीय अस्तित्व के-
 कैलले के लिए अमर एक-
 का भीरों के जल जाया करे, तुम कि-
 सी के स्वार्थ का बल दूना कि मेगले
 अन्नाप्य निर्यात को लीकर आते
 से पहले उठ के बल को तो आजमा
 लो। पर पाप दूखों अपनी गला के
 बंधन करने से गले अपने आँख के
 बंधनों के अन्वेषण कर लेता, नहीं
 तो खाना उदरन व्यर्थ जाया, बंधन
 तुम साथ दूखों के बंधन को कागि
 नहीं कर सकता, पहले तुम सब
 शक्य हो जाओ, अपनी शक्यता-
 भाषा बताओ, तत्पश्चात् स्वराज्य
 तो अपने आप ही आजायगा-
 ज्ञान उन जातियों की ओर तो-
 देरों जो पहले बिलुप्त ल अ-
 र्थ ओं जंगली थीं, जो रक्त का
 ना पीता दूध पीती थीं, जो
 नती थीं, पशुओं की संख्या में में
 जानकों की तरह छिप कर ल

करती थीं। आज मनु उन्नति क्या
 पर तुम को बितना पीछे छोड़
 गई हैं- आज के रक्त को उलान
 करने में जूझ भी नहीं दिखाने
 जातीं। उन को अपने देश का
 पूर्ण अभिमान है, वह अपनी प्रभु
 भूमि में बिना सब कुछ दे देने के
 लिए सदा तयार रहती हैं।
 रक्त के देश को पसता नहीं। री
 धान गदगदता ओं पारलमं-
 त्र के का लेशमात्र भी नहीं
 बचाते। रक्त अपने पूजितों की
 नीति में बंधा लगा रहे हैं।
 एक बार अपनी दशा के रक्त
 कुछ से भाष के साथ आइ
 निकल तो है सच कुछ रक्त
 उलामी की जंजीरों के जकड़े
 जा चुके हैं। रक्त प्रतुल्य ल
 विदेशीय जाति को दे-
 चला गया है। रक्त आत्मार्थ
 का बिल नहीं रही। रक्त के उला-
 ट, नहीं शरीर के शक्ति नहीं।
 चिन छिन्न नहीं- बल बुद्धि
 का रक्त दूखता, ओं चर्म तथा
 कर्म रक्त को ता देखा कभी के-
 बिना छे उमड़े। साथ साथ
 अपनी दुर्गति की टों छव भी नहीं

सब कहेंगे तो, कहते हैं तो-
 उम्मेदवा विदेशीय भाषा, जो उने
 हैं तो भी वही भाषा, लिखते हैं तो
 भी वही, सोचते हैं तो भी उसी में
 चल चलते हैं तो भी विदेशीय-
 त्व स्वदेशीयत्व का शान बिछ
 पड़े छेछे, धुण करते हैं, तो स्व-
 देशीयत्व से इन लैंड ऑफ़-
 क्लाइम के सिद्धान्तों को असल
 में लाते हैं; मन्त्र जपते हैं तो मै-
 कोलेका, कविताएं पढ़ते हैं तो
 हो-चरपीयसी, उपन्यास पढ़ते
 हैं तो स्काट के पन्तु इतरस्य
 १२ करोड़ भारतवासी तथा उन
 के पूर्वजों के विषय में आग
 कुछ सीखते हैं तो यही कि यह
 ३२ करोड़ भारतवासी जंगली
 हैं और सारा देश दल-पलेआवे
 है इन के पूर्वज भी जंगली
 थे और तदा गुलाब रो-पे। वे
 बड़ों की बिल बिलाए हैं, अथ
 शास्त्र गुरुओं के गीत हैं, शि-
 वाजी गुरु और मध्वाचार्य, सप्त
 सन्तु जी तथा सीता वाक्ताव में-

में कोई नहीं थे, रामायण ब्रह्म-
 हीन-प्राता है। पुनः गण! लौ-
 अन्त्या में आध आध को चिन्ते
 कि उ प्रभा से उन्नति की जा-
 सकती है यही अन्त्या में स्व-
 राज्य की आशा करता स्वप्न
 देखता नहीं तो म्याटो। उन्नति
 करते के लिये इन को यह
 सब भ्रातृप्रेम कुछ से नष्ट कर-
 नी पड़ेंगी, ऐसे स्वप्न को
 ऐसे अन्तरी मातृ भाषा ब्रह्म-
 की योगी, अपने पुरातन गौरव
 को स्मरण करने के लिए अपना
 लक्षा रीति रास पढ़ता हो गा-
 ऐसे जानता होगा कि उन्ने-
 ज्य पूर्वजों ने कि उ प्रभा से
 आत्मप्राप्त करने अपनी प्रातृ
 भूमि की सेवा की थी, किन उपो-
 से वे इतनी शक्ति से अपना ल-
 मय बित्ताया, किन उपो-
 उन्ने ने अपने अपनी जन्म भूमि
 को स्वा-विताया था - पुनः!
 उन्ने यह देखो भारत माता तुम-
 से ओर दबदबी लगाये अपने

कारे नवकीले से ही अपने उद्देश्य की आशा कर रही है, जिसका परिणाम में सबका ही उद्देश्य उद्देश्य आशा भी नज़र से देखता है। इसी प्रकार वह उद्देश्य भारत जनता भी सुझाए और आशा भी नज़र से देख रही है। उद्देश्य इसकी आशाओं को पूरा करने का दृढ़ निश्चय करके उद्देश्य इन आशाओं के पूरा करने में जान देने का निश्चय करके उद्देश्य - उद्देश्य तुम देश की आवश्यकता में को तो जानते हो। अगर सब लो अवसर नज़र नहीं आते, जिस देश के कथि र से आप उद्देश्य तुम हैं जिन्हें के अन्त को स्याद आप तुम तुम हैं। जिस की नीति में आप की भी नीति में और जिसकी अवसर में आप की भी अवसर में है। उद्देश्य जनता अन्त में आप की आवश्यकता कर रहे हैं, आप लगे को भी कर रहे हैं। आप उद्देश्य नव देश तुम देरने दोगे नहीं नहीं आप से इसी आशा

कभी नहीं की जायेगी और भारत जनता के तुम हैं आप के उद्देश्य में अवसर में भारत जनता की सुझाए आप के देरने देरने कर कभी नहीं हो सकता कि है। सारी लोग एवं आगे और उद्देश्य सुझाए स्याद स्याद वह जो नव लोगों से अंधका का वदालाने का पक्ष में और एवं के निवासियों को गुलाबों की तरह मोल लेवे। और आप के देरने उद्देश्य देरने आप के उद्देश्य में दिखाई दे जाये, उद्देश्य अब कोने की कोने भी सुझाए नहीं है देश को सम्मालो दोगे और उद्देश्य कर गये तो अवसर सुझाए जायगा, और फिर दोगे देरने से कोई भी फल नहीं निकलेगा, उद्देश्य अपने असली अवसर को दोगे कर उद्देश्य, सुझाए - दोगे अन्त में देरने दोगे कर के की देरी है अवसर विलुप्त अनुकूल है केवल सुझाए की देरी है।

[illegible]

आर्थ सिद्धान्त

डिग्री का ही रजाल बरतवाहिये॥
 अगर प्रजापति से १०० आदमी भी
 किसी अधिकारी ने बिना हुक्म में
 तो रखा की बिना सोच बिना देखा
 अधिकारी की बदस्तूर देना
 चाहिये॥ राजा के भी नीतिरिक्त
 सबेरे अगर वह भी आचार्य पूरा
 बाल बाल रक्षता हो तो उनको
 मात्र में जाकर दण्ड देना अगर कि
 रनी यह न माने तो उसे की रक्षा
 अपने दल पर से दण्ड न दे। और
 इस प्रकार से आचार्य से आजीवि
 नोय होना तो अधिकारियों ने
 अधिकारों की राजा की गले और
 आचार्य से स्वयं रक्षा कर ले। सो
 आचार्य देखा कि आचार्य सुख दि
 तते प्रजापति डिग्री चुन है नह
 अधिकारियों की की रक्षता भी
 नहीं मानते हैं अपितु उनको
 मुजा की श्रम या लेमन ही मानते

ते हैं-

चीन के संविद Confucius
 योनि प्रजापति Confucius ने
 इस बारे में निम्न शब्द बड़े हैं-
 " सर्वोच्च ज्ञान पर ध्यान देने
 नीति से नीति प्रत्यक्ष की moral
 sense or Conscience ही है
 बिना से रक्षा मानि-इ तौर से यह
 राज्य में अपना अधिकार बसाता है
 इस से यह सिद्ध होता है कि प्रज
 या रक्षा आचार्य तौर से अपने को
 राज्य का अंग बन जाता है और राज्य
 में सब अधिकारों ने रक्षा मान ही आ
 चार्य अधिकार संभालता है।
 सुद्धा कार्य की रक्षा के में राजा ने
 नैतिकता मानते हैं-
 राजा की नीति ही माना गया परमा
 शिवा का दावा। सत्य ने चिन्तना
 लेने संबन्धित न भवति च य
 कृपया परमो धर्मः प्रजापति

प्राचीन राजाओं का मूल्य

पालक १। दुष्ट विग्रहणं विन्ध्यं न
नीत्याते विनालुने ॥

जैसे दुष्ट राजाओं ने दोषों को
को धारण करते हैं वेसे ही नीति से ही
न राज्य में शत्रु को डर सनय में ही
बहुत होता है। और जैसे सच
बाद जनों ने दोषों को धारण होता है
ता है वेसे ही नीति का राज्य में शत्रु
जल्दी धरम को धारण होता है।

राजा का धर्म है कि वह धर्म से रह
ता। से स्वयंसे ही पालक ने
और अपने ही सहज
नीति का धर्म। पर वह दोषों का धर्म
नीति पर ही आश्रित है। और
जैसा नीति में वह दोषों का धर्म राजा
न ही रह सकता है ॥

इससे दिखता है कि केही
राज्य नीति में और न ही बल स-
नता है अतः एक राज्य में जो न
महान सरल formula

गमानि-

१. ५० द्वेष्ट (नीति) ५० १०००००००

अतो आचार्य बुद्धवताते हैं-
नीतिं त्यक्त्वा वसति यः स्वतन्त्रः
स हि दुःख काण्डः स्वतन्त्रः अयुक्तः
बाहुल्यसि धारण लेह नष्ट ॥ १६
अत्रैव हि तत्परं सर्व राज्यं नि-
वृत्त्या ॥ १५ नीतिं शुल संघापो
हृत्पलात्स हिताय वै ॥ १८ ॥

नितो राज्यं बलं भित्तं नितो
शास्त्रादि योग्यता। अतो राज्यं
दुष्ट नीति ३३ नीति के रथ सनय

जो राजा नीति को छोड़ पर स्व-
त्वाः ॥ १५ ॥ पर राज्य में नष्ट
दुःख का योग्यता बाधा है। और
जो से बल का धारण लेते राजा न
लेवा नरता है नष्ट राज्य का री
धारण राज्य नरता है नीति
शीघ्र ही धर्म को धारण होती है
राज्य को अपने हित में लिखते-

आर्थ सिद्धान्त

सी नीति का प्रयोग करता कार्यो-
 दि जिससे प्रजा से कुछ रहे तथा
 हितकारी भवे। अर्थात् प्रजा के
 हित के अन्तर्गत उपस्थित नैवे
 मानि नास्तुतादि अपवी प्रतीति
 से नवनाता जाये।

जो राजा अनीति का सहारा
 लेता है वह अपने राजा के उद्देश्य
 उता दूर्यन्त नही कर सकता
 है। क्योंकि उसका राष्ट्र भिन्न हो
 जाता है उसकी सेवा भिन्न हो
 जाती है और अनास्थादि गण
 तथा परिचय नही भिन्न प्रतीति
 नाली हो जाता है और इस
 प्रकार भी पारस्परिक नै-
 से वह राज्य अर्थों का प्रयोग
 हो जाता है।

एक प्रजा पण्डितो को केव
 भागे हर्षे। ईदा ॥ ११८ ॥
 अर्थात् अनीति प्रजा के अर्थ-

र राजा के न नी नी हो बसे नही
 नतीका चाहिये। अगर उसने
 प्रजा पर बिना देखे तब प्रजा
 य से लोभ विभाता भावार्थ
 पुत्र नहते हैं कि उस ना ही
 ही पण्डितो जाता है। और वह
 ही प्रजा अपने अधिभार से भुग
 बिना जाता है।

अर्थात् प्रजा के हर्षे अर्थों का
 नपक्षिण। अर्थात् भावार्थ
 दैवाः अर्थात् विजय ॥ ११९ ॥
 अर्थात् केव दार्ष्ट्यं धनि-
 त्वं तदाः कलहः। एतत् ॥ दल-
 धित्वं दार्ष्ट्यं न दक्षिण ॥
 दृष्ट्वा एतत् ॥ अर्थात् विजय
 अर्थात् विजय ॥ अर्थात् विजय
 अर्थात् विजय ॥ अर्थात् विजय
 अर्थात् विजय ॥ अर्थात् विजय
 अर्थात् विजय ॥ अर्थात् विजय
 अर्थात् विजय ॥ अर्थात् विजय

तारे

तारे

१

देखते हैं नित चमकते व्योम में तारे सभी
किन्तु साचा आप ने क्या ? कौन तारे हैं कभी ।
स्वर्गज्जल में रिल ये सित कमल हैं इस रहे
फिज लेखना बह रही क्या ? यिउ उस के जेन रह ॥

+ + + +

२

सूखता परिधान किस का फूल हैं जिस प. कद
शमिधाना इन्ड का क्या लैम्प बिजली के जड़े ।
फूल ये मन्दार के क्या स्वर्ग में हैं मिल रहे
देवपति के क्या नयन में हैं हजार दिख रहे ॥

+ + + +

३

मेतियों का द्वार किस का आन बिस्वर ज्ञान में
पुष्प बमके का हमारे पाप के लक्ष लोम में ।
देववाला क्या जलाली दीप सी के स्वर्ग में
फिर मैं देखते हैं कर्म सब के स्वर्ग में ॥

+ + + +

अधरं धर्म में क्या - कूलकहियां छोड़ती
कुन्द के उस काइ में क्या कुन्दकहियां जेलती।
जलधि के गम्भीर तल में सीप में मोती खिले
चमकते सरोवर तम में, कूल रत्नों के निखले।।

यह कौन ?

१

इस घनघोर निशा काली में लाका करता है यह कौन ?
छिप कर कोई देख रहा है है कोई यह मौन ।

भरपूर बोल, अनन्त नयन दे करता कौनों तारों का व्याज
त्रिषद हज़ारों देख हमारी कौनों हसता क्या करता है नाज़

हैस कर मौज उड़ा ले नगर, जो कोई देता हूँ शबास
या कर याद सूर्य को जो तब नयनन का कर देगा तब ॥

नास्तिकवाद

२

आइये अब, नास्तिकवाद पर लुट्टि,
गान तथा सहाचार के महत्त्वों से
निर्धार करें।

इस सामाजिक तथा स्थल है
जिसे नास्तिकवाद लुट्टि की स-
मुद्र का राजता है। हम जिस
विशाल संसार में निवास करते हैं
उसका उत्पन्न पदार्थ - नरि जरी-
नियम तथा अंग में बंधा हुआ
कार्य कर रहा है। अस्तु, नास्तिक-
वाद से इस विलक्षण नियम तथा
क्रम की समस्या का प्रश्न किया जाय
है। इस पर एक प्रकार के नास्तिक-
वाद का अधन है कि इस समस्या
का कोई हल नहीं, और वास्तव में
इस प्रकार का कोई प्रश्न करना ही
सामान्य भ्रमिता है। परन्तु यह कोई
समाधानजनक उत्तर नहीं। यह
सामाजिक तथा मनुष्य प्रकृति में
विद्यमान कारणकार्य काव्य द्वारा

नास्तिकवाद का एक महत्त्व है कि इस-
का नतीजा नही ही नष्ट कर देता है।
यदि यह अपने नतीजा में सफल
रहता रहे तो इसे अपने अर्थ में
उत्पन्न की अवस्था का न करे
तुल्य संसार में ही प्रत्येक उत्पन्न
की अवस्था उत्पन्न की नष्ट करे
का प्रयत्न करना चाहिये। अस्तु।

एक और नास्तिकवाद है। इसका
अर्थ है कि नतीजा का संसार को
संसार की अनन्त कारणकार्य-
प्रक्रिया का अनन्त कार्य करने
पर किसी उपनिवेश का मानने
की अवस्था नहीं रहती। अस्तु
मन की इस उपनिवेश सिद्धांत से
किसी सत्य नहीं हो सकती।
नह संसार की, कि इस प्रकार की
किसी सिद्धांत को मानने के
विषय सत्य नहीं जिसके नि-
उत्तर में इसकी उपनिवेश का कोई

कभी नहीं है। यह शब्द-लान्ता
 कडियों को अवशिमित तो मात्र
 गन्ता है अनादि नहीं। इस प्रकार
 गन्तव्य इति से बिना अगति
 गन्ता के संसारों को शब्द-लान्ता के
 गन्तव्य गितान्त असांगत तथा व्यर्थ
 है। इसी अतिरिक्त यदि संसारों
 को कडियों को अनादिता को मात्र
 गति लिया मात्र तो भी क्रम, आक-
 र्षित्य तथा ऐतिह्यक पदार्थों को
 संसार अगति को व्याख्या के
 बिना किसी कार्यकर्तृ कहें कि
 सत्ता को गन्तव्य असांगत शब्द
 हो है। जिस प्रकार अगति के
 तत्त्वमसि के निर्माण का काल-
 निर्णय उसके लुप्तगत् कार्यो
 के हस्तलाभ या सत्ता का
 निर्बन्ध नहीं करता उसी प्रकार
 एक संसार या संसारों को शब्द-लान्ता
 को अनादि मात्र भी अगति

संसार-रक्षा देनेवाली लुप्तगत्
 निर्बन्ध नहीं कर सकता। इस प्रकार
 लुप्तगत् नास्तिकों का संसार को
 अनादि, मात्र मात्र परमात्मा की
 सत्ता से निर्बन्ध करवा असांगत
 दृष्ट्या रह है।

एक और नास्तिकवाद है। इसका
 अर्थ है कि अन्तिम तथा उसके
 निम्न सांसारिक शक्त, असांगत
 एवं मानवीय गुणों तथा असांगत-
 को को व्याख्या कर सकते हैं।

यह लुप्तगत् नास्तिकवाद बहुतायत
 (Popular) होते हुए भी असांगत
 स्थापना को सिद्ध करने में नाकासया
 सिद्ध हुआ है। यह आज तक सिद्ध
 नहीं कर सका कि असांगत या उसके
 निम्न स्वयंसिद्ध है असांगत असांगत
 कोई भी कारण नहीं है। इस प्रकार
 असांगत नास्तिकवाद के माननेवाले
 विद्वानों की स्थापना ही साध्यम

है।

एक और नास्तिकवाद है। इसको कहना है कि यह संसार तथा इसके सम्पूर्ण पदार्थ और नियम मनुष्य के मानसिक परिणाम हैं। 'उपनिषद्' संसार में जो कुछ भी पञ्च ज्ञानेयों द्वारा अनुभव होता है वह सबका सब मानसिक अवस्थानों का ही रूपान्तर है। एवं हमारा स्वप्ना जगत् ही अपने विलक्षण गुणों द्वारा जगत्तत्त्व वस्तुओं को उत्पन्न करता है। यही कारण है कि इस प्रकार के सिद्धांतों के कारण यह नास्तिकवाद कभी कभी स्वप्न-उपवाद (Amul-Chism) के नाम से भी पुकारा जाता है। महाशय शेषनहार तथा उनके कुछ अनुयायी स्पष्ट शब्दों में मन का दिमाग में ही सम्पूर्ण देश का वास्तविक पदार्थों की सत्ता को मानते हैं। शायद इसीलिए

उनके पीछे जानेवाले कतिनों (Clyde) तथा क्लरेन (Clare) आदि ज्ञान विद्वानों ने माना है कि दिमाग का वास्तविक वास्तव में सारे संसार को आन्धरादि करने वाले एक बदन दिमाग का ही सूक्ष्म-निष्पन्न प्रतिबिम्ब है। इस प्रकार ऐसा सिद्धान्त जो कि स्वात्मिक समझा मानने वाले प्रकार की जगत्तत्त्व वस्तुओं को जगत्तत्त्व देता है अपने जगत् ही जगत्तत्त्व खण्डन करता है।

इस प्रकार उपर्युक्त विवेचना से स्पष्ट होना होगा कि कुछ नास्तिकवाद का उसमें किसी भी स्वरूप में सम्बन्ध नहीं कर सकती। जब विचारना चाहिये कि क्या नास्तिकवाद इत्यादी स-सुख कर सकता है ?

आत्म सिद्धान्त

नास्तिकों ईश्वर में विश्वास नहीं करते जब तक उनके हितों केवल मात्र जगत की ही सहायता है। उस स्वाभाविकता का अन्तर्गत होता है कि क्या अभी संसार परमेश्वर के बिना भी दृश्यको समुच्च कर सकता है ? इसी संभ्रम में परित्यक्त मति का कोई भी अग्रणी ऐसा नहीं हो सकता जो कि अपने अनुभव से खीनकर कर सके कि मानवीय दृश्य केवल मात्र स्वयं, पाप, सम्पत्ति, मर्यादा, सन्तान, सन्तान तथा अशमोद-विहार से ही समुच्च हो सकती है। अतएव नास्तिकों पर दोष संसारविनाश का दोष लगाना प्रितान्त अनुचित, अन्वय तथा अपमानजनक है।

इस प्रकार ^{परमात्मा के} नास्तिकों के अभाव में नास्तिकों के सिद्धि, सुन्दरता, यथार्थता, तथा तुल्यता तथा सौन्दर्य आदि व्यभिचर तथा अपमान की उत्पत्ति बनाने वाले गुणों की ही दृश्य की उच्च भावनाओं के केन्द्र के रूप में उत्पन्न कर सकते हैं। वास्तव में इन उच्च भावनाओं को सांसारिक उपकरणों के रंग में रंग कर दिखावा दिखाने वाले तथा देखनेवाले दोनों के लिये बहुत ही भला उत्तीत होता है। अतएव जहाँ उपर्युक्त गुणों का भी स्वरूप भाव से विचार करें कि जहाँ पर परमात्मा के विशिष्टता के भावों में भी मानवीय दृश्य को समुच्च कर सकते या संसारका कुछ भला कर सकते हैं या नहीं।

मान के दिव्यता का विरोध के लिए
मने एक अन्धकार के दिन प्रकाश पड़ गया
गुनाह के कि - निष्ठा विधि के अन्तर्गत
में दिव्यता आकर उसे भी कोई हलाकेत
नष्ट नहीं आता जिसे प्रकृतिय के अन्तर्गत
है । एक ही प्रकार के भी किसी
विश्वविद्यालय के एक ही भी निष्ठा

शिक्षा. या हस्त

नहीं था, वन्द्य सागरला जानता था कि
हेली मरणा के भी उसने उम्मीद
का गलत नहीं परोसा ।

રાજાને એ ઝાન પડ્યો કે જો
 કરેલો નવન રાજા તથા શિવરાત્રીનો ઉત્સવ
 આજે એ જાણના નાહિયે / જુદા જોડે મિ
 નાના મીઠું જો હશે ઝાન પડ્યો કે જો
 જાણે એ જાણના હશે / ઝાન પડ્યો કે જો
 જાણે એ જાણના હશે / ઝાન પડ્યો કે જો

ਸੁਯੋਗ ਕਾਮਨ ਤੁਸੀਂ ਘੋਰੀਂ ਦੀ ਮੋਰ
 ਆਈ ਘੋਰੀਂ ਦੀ ਆਖਿਆ ਯਾਦਾ ਯਾਦਾ
 ਤੇ ਏਨਾ ਜੇਨੇ ਕੇ ਆਖੀਂ ਤੇ ਕੇ ਆਖੀਂ ਨਾ ਕੇ।
 ਜਦਿ ਲਕ ਕਿਧਾ ਆਖੀਂ ਕੇ ਦੇ ਲਾਭਾ ਆਖੀਂ
 ਸੁਯੋਗ - ਲਕ ਸੁਯੋਗ ਆਖੀਂ ਲਕ ਆਖੀਂ
 ਦੇ ਆਖ ਲਾਭਾ ਆਖੀਂ ਲਕ ਆਖੀਂ

अह निरिहह ईहि निपासी कुरी गले मली
मैवतेवगा एव मानविक मय को एव
इव निरुपम के को ईव

एक बड़े का चित्र दर्शाना ना ब
 गिरा है ना ब गिरा लु का उतिबिब का
 ना है बेंती ही बहि उा ने अकर से कीगो
 मुर्ति सरह है बरो का अलाई के इलाहमे
 बिही दिआगा नम से के एक मरा लोको
 के नात ले इन बिचारिनि ले कुही न आ-
 भिक लोचिब बनने की भाषा कदना
 कविने नात

ये उन्नत जन को विचारते कुनेर
म तप्य की उषे आ गयी करनी चाहिये । उषे
आ करते ते इन कभी भी शून्य नहीं उ
इस को करल ग। कर सकते ।

बाह

१
देख तेरे आरामे दिल के दुकड़े होगए ।
हाथ गड़े ! पाप हमसे क्यों लेते होगए ॥

२
जिन गरीबाना प्यो में, सँभड़ों आलस पड़े ।
रह गए दो चार, पर ते, शान्त अमी खोगए ॥

३
दिलशुओं का हात देवे, कुछ कहा जाता नहीं ।
गिरते २ अब गरी में लायला के होगए ॥

४
खेल के मैदान देखो कुछ जिनके नील दुकूल प्ये ।
रेत का ओढ़ा ब्रह्म है, अंध बेसुध खोगए ॥

५
पातु गड़े ! धेनुकाल ते मे मेंता उह थर ।
उन के बड़े साथ उन के घरते २ खोगए ॥

६
लाल कुल के लाल नयनो, ते मे हास्य देखकर ।
रेखि के चरने के फिर से अशुभल ते खोगए ॥

मन

खूब देना । खूब देना । माह
 भाँड़ खूब देना । बार २ यही भाँड़
 आता है खूब देना । ऐसी सरपट
 होय लगाई जाते कि स शरा
 सा तो लुट ५ वा २ होना था । मार गये
 मार गये भाजी । क्या कि लपत में
 भी इतना तेज होयने वाला कोई
 होता है । होता क्या, हवाई जहाज
 भी इस के सामने धमक गये ।
 शान्ति । शान्ति !! खूब रहे ।
 अब तुम्हारे से कौन बड़ा चढ़ा
 है । पटर बड़े २ ही तुम्हारी मदद
 से सब काम कर लेंगे । रेल-
 गाड़ी में क्या खर्च कर रहा है ।
 खूब देना, खूब देना ; जितना
 देना सकते हो देना । देखते हैं
 कौन तुम्हारे मुकाबिले में उठ-
 रता है । अच्छा भाई, कलकत्ता
 जानकर तो दिरंगाओ । ओह !
 यह क्या पुत्र तो मेरे कहते थे
 पहले ही कलकत्ता भागे गये,
 अब की नहीं । देखना देना ल-
 गाओ । पटर बात बही है -
 मेरे कहते पटर । अच्छा लो,

(५०, दो, तीस । नहीं, नहीं ---
 यह तो तुम्हारे फिर नहीं किन्ना ।
 मेरे कहते पटर बनते नहीं ।

x x x x

तुम्हारे कहते पटर तो देना
 था । यह तो मेरी खूबी है कि
 कहते थे वेहतर जो कहो ही-
 जिर हो जाता है । मेरी तेजी के
 कारण ही इतना मालूम पड़ता
 है ।

x x x x

अच्छा भाता तुम हीन कहते
 हो । तुम्हारी जाल ही इतनी
 अच्छा है कि भाजी नहीं जा
 सकती । तब तुम जमी खन
 मुच बाजी मार गये । अच्छा
 भव जाओ । रक्षित का संकेत
 ले आओ । अच्छा
 ओह ! अब तक नहीं आये
 क्या बात है । अब इतनी देरी
 क्यों लगा री । अच्छा, इतना
 शाह ही कर । देखते हैं, कब
 लौटता है ।

अच्छा, आगये । बड़ी देर
 लगा री । हो, तो फिर क्या
 संकेत लाये हो । मुनाओ तो
 सही ।

x x x x

अन्धरा, अब तक कलकत्ते के आलीशान मकान तथा दूतों के दौरे ही देखते रहे। क्या बिद्या-भिषी के दल तथा बहों के पोकी के देखते मैं तुमने सारा समय बिता दिया। हमने तो रस्किन का संदेश लगे भेजा था और तुमने ७ कलकत्ते में दफ्तर मारते रहे। ब्यो, ब्यो भूल गये थे। अबरा, जाओ, फिर जाओ। इस बार रस्किन का संदेश नफर लागा। भूलता मत।

x x x x x

तुमने इतनी देरी कहा होगी। इस बार तो पूरी तरह से याद दिला कर भेजा था। कहीं कलकत्ता तो नहीं चला गया। अब वह कलकत्ता का नया शैकीन तहर आता है। नहीं, ऐसा नहीं हो सकता है। वह तो आला-पालक है। पिछली बार तो वह भूल गया था। अब की तो याद करा के भेजा था। तब तो कहां लायता होगा। देखो कब आता है।

x x x x x

ब्यो गई कहा गये थे। को-

बने ब्यो नहीं। हैं। क्या बमर्द नले गये थे। बहों के मागों में चक्र रूहे थे। बहों जाने को तुम ने किसने कहा था। अब काग भूल गये थे। यदि नहीं भूले थे तो ब्यो नहीं गये। बस इतना बोले - कि तुम्हारी मर्जी बमर्द की तरफ करते सी थी। तुम बड़े गालामक निकले। तुम जैसा तलाक में ने कभी देखा। तुम भी तुम हरे- जो भाग कर बैठे। किसी की सुनते भी तो नहीं हो। भावने मातृक से दूर ले लिया को। हा अब बहों मागे २ भक जाने हैं। तुम्हारी दो तोला जबाब इस ले मस नहीं होती। त जाने सारा दिन के हां अनारा गिदों की तरह फिर करते हो। कितना के लिखे प्रहारा चाहता हूं तो भट कहीं दीज जाते हो। धरार कर जाने पर आंस झुकते फिर कभी गायब हो जाते हो। तुम्हें एक बार फिर जेतानती दे दता हूं। आगे से मैं एक नहीं सहने का। हमने तुम्हें उधर उधर बहुत नफर

लगाते देना है। कभी गंगा में
पारले मार रहे होते हो तो फिर
कभी गुलाम, कलकत्ते और
बम्बई की हरे करते चले जाते
हो। आना जे देते पर भी अत
सुनी कच्चे उनी में प्रशमल
रहते हो, न जाने तुम्हें किसने
सही बुरी आदत उलना दी है।

x x x x x

तुम भी अच्छे दरे। पहले
शाबाश देते रहे। जब हम उस
में मजा लेते लोगो को सब को
दिया चरते हो। तुम्ही तो मुह
में कलकत्ता और बम्बई भेजा
करते थे। जब मैं एक समय
जाता था जब तुम्ही तो रोते थे
जो प्रशमल के पुल बांध दिया
करते थे। जब हमने तुम से
सलाह लेनी बग्न कर दी तो मुह
सुना लिखा। पर कोई नहीं है।
हम तो जो जी में आया
कोरे। अब तो तुम्हारी रानी
भी सुनती। हम कोई तुम्हारे
गुलाम थोड़े ही हैं कि जब होना
मारो हाथ जोड़कर सामने आ-
वते हैं। दासता का नामना
अब जाता रहा। फिर कभी
ऐसी भूल न कला। मेरी सहा-
यता के लिए तो साहयता

तथा अमरीका न मार रहे। इस
काश में तो एशिया भी मेरी
मदद करेगा। कुछ ताकत
हो तो कर दिए। जिनो तो
बगी २ मारते हो तुम्हारे से होगा
कुछ नहीं। फिर घबरावत
क्या भयो जब निडर तुम
गई खेत। पहले तो मेरी
ही २ न मारते रहे। अच्छे देखो
तो लही बरा में होने को कहता
है। अब तो मैं तुम्हें अचानी
ताच नचाऊंगा। देवत हैं
कोत बानी मारता है। सुरता
का नाम लेकर तुमने प्रात
चाहते हो। मार दे तुम्हारे
उस से भी साफ २ बच गया
था। मरणा का भय मार कर
तुम्हारे ने कैसी प्रशमल
दिवाई थी। मैं तो वजन तुम
का दादा हूँ। वजन मेरा ही
लाउका है। जिलंगल होने से
कुछ नहीं बनना। लम्बा
कोत हाथी भी ग्रिहल के
करा प्रात है। तरी मेरे
सामने दाल बना मार
सकती है। खबरदार, कभी
मुझे बरा में कहने का नाम
भी दिया।

x x x

[शकाना में]

(हथेली पर सिर धर कर)

हाथ ! अपनी जिदगी तबाह कर दी। किस बदमाश का मेरे से चाला पड़ा। सिर पर नहाने का यही फल है। नाशिश मरारानजी का कहना ठीक निकला। इसको पहले से ही लगान से बांधे रखता तो ठीक होता भूमर हेली मोते आज न सुतनी पड़ती। क्या कोई-कुछ सुसता नहीं। बिपिन की गरी न्यारी। अब तो अहसास से जाता रहा। परतु अकेला रहता भी तो दुष्कर प्रतीत होता है। यदि परमेश्वर मनुष्य को बिना इस धूर्तमन के रहने का मार्ग दिखा देता तो मैं कभी इस बदमाश का मुँह भी न देखता। परतु क्या किया जाय इस के बिना तो एक सण भी रहता मुश्किल है। भावित दुष्ट कला ही चोला। (कमर कसकर) ओहू यहाँ भी कोई कठिन बात है। इतनी जल्दी निराश क्यों हो गया। इसे अभी पकड़ लाऊँ। अब की मैं एक सण के लिए भी न छोड़ूँगा। इसने काफ़ी तेज कर लिया। मैं इसकी कस्तूर अभी नहीं छूटने का। कोई

कितना ही शेर मनावे मैं इसे पकड़ लाऊँगा।

चले कहीं के धूर्त, बालाफ़्त तेरे जैसे मैंने कोई मुतफ़्तगी देना। मे तुझे नहीं छोड़ने का। अब तुझे बांध कर रखूँगा देख कर ही जाता है। स्वतंत्रता का तू ने घरी फल दिया। अब तू तूहाल बहुत लिहाज किया व तू तो मधु से लिये हुए विष मात्र निकले। न कलकत्ता भेजे गा न बॉम्ब, इदमकी कौहरी में शीखर (रुनूँगा)।

जी तूरे। जो आता। गुलाबी साफ़ हो मुझे होश न थी। मैं पागलमनो में ही सब नमनार कर रहा था। मुझे लमा-करो।

कहा दबाया। अब सुध भली है। जब से इसे कानू के हाई सब शान्ति है। कोई अफ़ा न ही। सब भावत ही मान्य है। जीवन का यही अन्त रहै। यदि तारा संसार ही इसी तह केले लग जाय तो संसार का ही मला हो आज से मैं इसी का उपयोग करूँगा "कोट भावो। मत को मरा में करो। वही तो यह मत तुम्हें था उधर भदकाला रहेगा।" इति.

(लेखक - श्री युत व. श्रीमल्ल 'देवांगदु')

जिस प्रकार एक तमोरे दिशाने वाला
पाजल रोख ताबन्द रहो सोनेको जरीर से
नचातोते इसेस सुारा मे मनका गोरे इसीप्र
कार असतो से बहु जानिको परा धोम होकर
भपता भिज्यो। सर यताना बन्द रह्यो
परतोहै। परन्तु जो जातोहो इस अयेत
होतके हा धन्दे मारकी उमेको को युग
जातेहैं जिनको सति राय्य हयो म्पये
जातेहैं जिने अपनी म्प युगवातो को मोर
नीं कर सकेत तिनके मन इतेने मन् राय्य
है जिने म्प पयो के नादे को मान ते वृत्त-
सकते तिरय्य के देसो जाति मां दे राजन
समान रना सकोत दुष्ट मो रत सगानेहै।

[illegible][illegible]

पठ्यम् । भारतीय इतिहासके इस
भाग पर क्या चर्चा के अभिप्राय को जान
ने रख करती है आपने सामने कुछ कह
कर है । पृथ्वी पर वरणाधीन युव-परागत

करोते कुछ अवज्ञे लिखें उभरें इसी से सब-
 गागर करना चाहिये। उभरने वर्गसमों ३ नरुजो सुलभ नहीं दे सकते यदि यह हल हो
 को सुखी मनोको चाहिये कि आज सोरे ३ नरुजो सुलभ नहीं दे सकते यदि यह हल हो
 देश में सब भाव फिर जागृत हो रहे हैं।

इन जंगलों का आश्रय ले लिये बिना
 ना सदैव गम्भीर त्यागी विचारक न हो-
 मिल सकते - यदि स्वतन्त्रता प्राप्त कर-
 लो तो हम सबको इसी का आश्रय
 लेना होगा। भारतीय और छत्रपाते
 होना जीने इसी में अभ्यास किया जा-
 सता है सुधारक नरमान भारत के पि-
 ता दानन्द ने भी इसी का आश्रय लि-
 पाया - इसलिये उद्देश्य - गीत शरण
 भर गम्भीर होकर जंगलों के प्राचीन
 मधुर मन्त्रों को सुन कर मन न बरे।
 मधुर मन्त्रों को सुन कर तो आज के न
 यक राम के धनुष को टेंगरा कर कासा
 कर कर सकेगे।

अभीष्ट कर सब करने को एक उद्यम-
 उदाहरण -

आज समाज राजनीति में जो-
 हसरतों से भरे हैं लिये शर में जो सी मिले-
 हैं जहाँ से सैकड़ों मरीज मतिमान उभर
 दवा है लिये हैं। इसमें अनेक विचार विचार
 कीस के मरीजों के घर दवा करने हैं न जाकर
 नाकर देखते हैं। अनेक अनेक आर्य समाजों
 को भी इससे शिक्षा ग्रहण करनी चाहिये।



४ इसी के फल ऐसे होंगे चाहिये जो न होत
 क सम्भव हो स्वदेशी चीजों से वगैरह
 ५ एक मन्त्रार्थ के देहाती लीकरी
 इसकी मरणादरसके
 ६ जोट इस सम्बन्ध में पहली कहिये का
 कपक है यदि ऐसे विचार के लोग बालों की
 पारितोषिक देसी नाप बेलग का घूँव भी
 दे दिया जायगा ॥

लाहौर में खड्डियों का कार-
 रनाता

खड्डियों का गति का कारनामा के मुसली
 लाजार लाहौर में खुला है जो महा-
 राम सौ खता चाहे उन्हे सिखाया भी
 जा सकता है। उस के ३ विभागों के
 में है (१) वह महाशय जो सीख कर बम
 का काम करेगा चाहे। २ जो सीख कर बम

(महात्मा गांधी जी के फल ग्रंथ (भाग १)

महात्मा गांधी जी के फल ग्रंथ (भाग १)
 आचार्य का र्थ के फल ग्रंथ में भी लिखी
 बाले प्रकाशित की है। रत्न

॥ हफ्त बड़ी उद्योगों के फल
 'दने' है कि ५००) उद्योगों के
 दिया जो न गांधी जी के फल ग्रंथ के
 अब से उद्योग आचार्य के फल ग्रंथ में
 उद्योगों के फल ग्रंथ में लिखी जायेगी
 ६ जगत् की सी पहिले पहिले में ज
 दने का है।

जिन्हे लिखे भी लिखी जायेगी का न
 ३ फल है -

१- ३६० फल के फल ग्रंथ एक फल
 दर्जिया आदमी इस फल ग्रंथ के फल
 बेलने के फल ग्रंथ है।

२ बेलग का फल ५०) से अधिक न
 हो

३ यह फल ग्रंथ से फल ग्रंथ से फल

मुरादाबाद की प्रान्तीय सभा के कुछ संस्कार.

[illegible]

इस लक्ष्य को जीतने के लिए सामान्यतः काबू बगलगा दाएँ एच. पी.
ये। मैंने यह सब, अपने लक्ष्य के अन्तर्गत ही चला लिया है, इस
विषये उनके विचारों में मुझे बहुत नतीजा मिला है। उनका भा-
वना है कि 'आइस बिकेन' को जीती दोस्त मिले'। एच. पी.
को तो बहुत बहुत प्यार था और इसी वृद्धि ने वह बहुत ज-
बोली थी।

मरी तो पाठक यह मनने के समर्थ होऊँगे कि महारा
 जालीय वीर्य न होऊँ । जिसिल भारतीय एजेन्सी के
 वीर्य । ॥ और उरो के समर्थन का भावना वरा ।
 वन तो उपाय अत्यन्त ही अत्यन्त ही । समर्थन वरा
 समर्थन एते वरा । देता कोई अत्यन्त ही वरा वरा
 जिस वरा समर्थन की न एते कि उपाय वरा वरा
 वरा वरा । इत एते न समर्थन वरा वरा
 देता वरा वरा ।

पाण्डु स्वयं यथा पश्यति सुखं तद्वद्विद्वान्ते किं त्वं इतरां मनो
 'अत्रिचल भगवतीय' 'जाप ह्येते' के तेषां यथा तर्हि । तब तो
 सुखे भी प्रपन्नो सम्पत्ति ब्रह्मली यजुती है । उस पदम में
 प्रपन्नान्दी का भाषण है कि उक्त पदम की भाषणा कि एक
 'प्रपन्नान्दी पदम' के सम्पादित का होना चाहिये
 साधना पद है कि साधना में उन सुखों का पद सुख प्रपन्नान्दी
 तर्हि कहा गया जो कि इस प्रपन्नान्दी पदम में उपपन्न
 नही । इसीसे कि उक्त सम्पादना पदम में 'के' प्रपन्नान्दी
 कि-गता गता की इस पदम पद का एक सुख प्रपन्नान्दी

[illegible]

स्वागत समिति ने एक प्रस्ताव का आयोजन प्रारम्भ किया
था। हिन्दु-बुद्धमार्ग-स्पर्धालय गृहस्थ भोजन का
आयोजन करना भी कहते हुए यह प्रस्ताव गृहस्थ ने प्रकाश
में करा कि संभव है। इस स्पर्धालय का महत्त्व अभी तक
अज्ञात है कि नहीं संभव है।" यह कि प्रस्ताव लागू
होना कहते हैं कि यह स्पर्धालय प्रारम्भ होना शुरू
से प्रारम्भ होना है कि इस स्पर्धालय में अभिमान बड़ी लम्बा
सका।

इस परीक्षे में कुछ एक प्रश्न अधिक महत्वपूर्ण माने जाते हैं। इनमें से सबसे अधिक मुख्य "संयोग-ताप" का प्रश्न। इस प्रश्न के दो प्रकार के होते हैं। मध्य ताप की (संयोग के दो प्रकार - भौतिक) का प्रश्न। इसका समाधान करना।

[illegible]

भी गहाला गयी थीने को कुद बहा। उन पर उहे कुद विरोध
 व कुद सौध। (एव एव) दाने की विरोध भावर कला गयी है।
 जिने उनकी भावनी सुनने को भी भाव्य आस कुद है। नि ही के
 नेते है। कि उसका हृदय र हृदय तुल्य हृदय क हृदय और
 दुःख का सा प्रभाव बल कला होता है। लोग बरते है। कि ने
 ने ने पतले और कुद है। उन की उभावनी ही दुःखोत्तम
 के विना तो उर कुद है। नि के कुद भा। मेरे तो के कुद भा
 रस का हृदय सौध नर से थे।

गरी सभा के सञ्जल सननीय वं: साहसीय जी ने
 अण्डरवोग के प्रस्ताव विरोध किया। इस लिये उनका
 साहस सतर्जीन था। यदि के कोरि उनके भावण के कि
 वचन में तेरे मेव किं सत्य लिखें। तो मैं बईगा। विनम्र
 लव लाउ कल सुपर और रम्या प्रक के रम्या से उनका
 वन्दन साथी पारिवर्ग के अर ने अ पूर्ण थी। पर यदि स-
 गरीक भाव, सत्य कला, उम्कि और प्रभाव के उर की गह
 ई माननी हो। तो तब वह बड़ा उदारी, साहस्य और प्र-
 भावर हित थी। उसने उनका लव उन की प्रस्ताव का सत्य-
 निरूपण प्रभाव की सत्य में नहीं प्रभाव। और न वह ही सत्य
 सभा था। कि न कि अरानी के वर कल आभाव नल
 अलगा नहोते थे। नारी के हिन्दि विधियालय और अ-
 लीय के मुसलिम विधियालय के सत्य से लंके
 थ तोर के के विषय में भी पारिवर्ग ने एक गहल-
 पूर्ण प्रस्ताव पास किया था। इसका ठाठ थोय नहो।
 न प्रता उता को और मौलाना सोकल प्रत्ये को है।
 रोने ही सजनों को सजने विधियालय की ई
 ईद का पला था। इस लिये उन की नकुल कने का
 सार पूर्ण और प्रभाव अण्डरवोग सभा के ही था।

समय नर हृदय नर ही कुल सनी और
 वृत्ति था। जिस भल कृ कि सननीय वं: सत्य-
 नीय भी अण्डरवोग के प्रस्ताव का और विरोध कल हि-
 न्दि विधियालय के संबंध वरने के लिये प्रभाव का
 विरोध बरते के लिये ने कुद थे। श्री सननीय
 जी भी यो भी और लव दलीले नहो। शिव नला-
 दउरा की मैरिज नर के सत्य से हल हो गई।
 श्री सननीय जी की रस सनीय सभा को देख-
 कर मेरे दिल में बड़ी आ रहा था कि यदि मैं
 भी कुद पस लिला होत और कुद मोलना जा-
 नता। तो मैं श्री सननीय जी की अवश्य एव-
 मत करता। पर मैं तो अवश्य कुद ही था।
 यन्तु सभावति के भावण की तरह वह पारिवर्ग
 भी अपने सननीयता के रूप की व्यर्थ सिद्ध
 करती। यदि श्री सत्यपार प्रभाव जी के गार
 को रोवने और रस सन ले रसनी को नद-
 र देने के विषय में दो प्रस्ताव न उपास्थित
 करते। मैं नूँकि जान के ही हले सला हूँ।
 और मेरी हृदय में दाशी न अलीगढ़ के वि-
 धिपालक, दिव्यकृत और वंजक वं सजने
 भी अवस्था यह अभिध अर्थ और गहल
 ररकता है। इस लिये मैं तो सनी जी का प्र-
 त्यन कुतज्ञ हूँ। कि उन्होंने देले आक

रस सत्य को जगता के सञ्जल उपास्थित
 किया। प्रभाव गद के लिले के लम्प में भी
 जो प्रस्ताव पास हुआ था। नही अवनी
 गार कुद नर सननीय नही है।

राजनैतिक विषय के विषय में मुझे
 कुद और विरोध नहो नही है। रस सत्य
 और सभा सभे लने के उर ने कुद थे।
 उन में उसे जाने का सौभाग्य नही कुद है।
 सिमे उन के लिले में उप है। पर ही सनीय
 हिन्दी साहित्य सम्मेलन में अवश्य गया था।
 क्योंकि गंवार होते हुये भी उसे हिन्दी नहो
 न प्रेम् है।

सानीय राजनैतिक सम्मेलन पारिवर्ग नि-
 तनी सन सत्य और सभे लने के साथ ई
 थी। उतनी ही अण्डरवोग और अण्डरवोग
 के साथ यह सम्मेलन हुआ था। ऐसी भी
 रस आला है। दरे र सो को योगे हुये
 कई ऐसी नहो हुई। जो उर सभे से से
 गंवार की नहो से न हिन्दी सनी।

स्वागत समिति के अवसर का भावण
 कुद विरोध उर कोरि सननी था। सम्मेलन
 के सभावति भी पदार्थ की शुभा का भावण
 सभा के लोच पारिवर्ग और विद्वता के साथ
 सिला गया था। पर अण्डरवोग रूप से सो-
 बा होने के बाला उतने न देख उसे पर
 नहो की मुला ही सभा।

सम्मेलन ने जो प्रस्ताव पास किये। उनसे
 सत्य होता था। कि उन के दली भत्ता हल
 प्रभी सन की गति से नहो वीदे है। गद-
 ल में अण्डरवोग के विषय में किमल क बर
 हो रहा है। पर रस सम्मेलन में सन भी स-
 रकार के प्रति सत्य उपास्थित के प्रस्ताव
 पास हो रहे थे। उसे यह देख और भी सत्य
 न आश्चर्य हुआ। कि प्रस्तावों का रूप और
 दोषा सुगम नही था। जो कि अण्डरवोग
 भारतीय हिन्दी साहित्य सम्मेलन में प्रति-
 वर्ष पास हुआ करते है। सैर में अण्डरवोग
 को को बईगा। कि ने रस सन पर सुझा-
 होवे। कि सम्मेलन हो तो गया। वाहिले
 तो उता के होने में भी वहुन लम्बे धान-
 तो अण्डरवोग में आपसे विरार संगता
 हूँ। इति शब्द।

X X X X

भविष्य वाणी.

- त्रियपाऊकवद! इस वर्ष हमें मोतिष (६). चीनी का भाव सादर तोरण घटना
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पुर्जों की भी श्रुति है यन है। नत ग्रहों संप्रसार न पड़ेगा.
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चक्र में पड़ गये हैं, फिर भी जो मालूम पर भी रुई का भाव मढ़ा रहेगा.
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गले जी सिर्फ अपना पेट ही चराकर वेदांश सब न जानकर
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५५	५६	५७	५८	५९	६०
६१	६२	६३	६४	६५	६६
६७	६८	६९	७०	७१	७२
७३	७४	७५	७६	७७	७८
७९	८०	८१	८२	८३	८४
८५	८६	८७	८८	८९	९०
९१	९२	९३	९४	९५	९६
९७	९८	९९	१००	१०१	१०२

हमारे सहयोगी

महाविद्यालय दैनिक

महाविद्यालय दैनिक तो दिन से अगले में उतरा हुआ है - खुन चिकना चुपड़ा है - आहा!! देखते ही रसलोलुप तमरगरम चारों ओर से घिर जाते हैं। दैनिक पत्रों में आज तक ऐसी राजपट देखने में नहीं आई - बाह, बाह ब्या करने ऐसी ऐसी चित्रकारी में ही ही रातों जाग भर भी ऐसा महाजत का फल न होना तो फिर कब होता।

पत्र निकलता है विजय दशमी की खुशी में - किन्तु आरंभ से अना तक देखते पर भी हेमलेख से अधिक दशमी पर आपका लेखन मिलेगा। कविता तो एक भी पृष्ठ विवेक कर नहीं है। बीबी नरानी पर विशेष लेख लिखा गया है - पं. बागौरन जी की पहिले मक में एक तथा दूसरे अंक में के कविता में लिखली है। वे सब दो नों राजहंस में पहिले निकल चुकी है। उधे से फिर उतासा गया है।

दैनिक पत्रों में समाचार रसूल होने चाहिये। उसमें यह देखे ही दैनिक समाचार दता है जेष्ठिक। जागिरा समाचार। स्थानीय महाविद्यालय के समाचार उसमें इतने ही होते हैं। जितने प्रयुक्त के प्रयुक्त समाचार में।

पत्र में मौलिकता की बहुत कमी है। मालूम होता है कि इसके सम्पादन सम्पादन नहीं है। अभी तु संयद् कर्ता है। चारों ओर से लेख इकट्ठे किये गये हैं किन्तु कोई सम्पादकीय लेख नहीं है और गांधी की दृष्टिगत।

हो कहा से जबकि सम्पादन महोदय को देख लेख ही नहीं लिखते।

किन्तु सम्पादन में नई सुधारणा भी तो उन्होंने भोला भागी होना में कोई सुधार देख दूँद निकाला है। मालूम होता है कि वे आपन गात्र के चर्चा में पड़ गये हैं। हम लिखते देखते हैं कि नहों सोम का अर्थ जेष्ठिका है और अंगिरा एक नक्षत्र है। समाचार गात्र के न है। सिद्धांत तभी तो उद्योग है। किशन मित्र का इतरा - माई बनाया है। मालूम होता है कि वे विज्ञापन की नीति से तनका अप्रतिष्ठित है। नही के न कभी ऐसी नही चलन करे।

संग्रह करने का परिश्रम मत्तल सरासरी है। पत्र यदि कोई तो अपन कुंठ आप निको सिद्ध बना। होकर पत्राचार जात कर सकता है। लेख पत्र के विषयों पर होना चाहिये। हम चाहते हैं कि यह पत्र दिनभर ही सतत चले। जितने में लेखकों में उत्कृष्ट करें।

विजय-कुसुम.

आज उक्त पत्र के दो अंक होने पाठ्य है। पत्र पढ़ते वालों का स्फुटता विनोद बहुत करता है - पुकि ऐसी मिलती होती है कि लोग इसी सोचते हुए ही एक बार हँस ले पड़ते हैं। समाचार कविता में माली रीति से वर्णित होता है। कविता को अक्षरम पढ़ना चाहिये।

इतना एक मने कोर दृष्टि को चर इका है - वहि आन उकांचीय है।

भारत में

Protection लगाने से एक
 लाने होने को समझा। है कि
 विदेशी लोग यहाँ आकर अपने
 को व्यवसाय के कारखाने खोल
 दें, जिस पर तब तक लगाया गया
 है और साथ लाभ हस्तगत कहे।
 अर्थात् विदेशी पूँजी के द्वारा
 साथ लाभ विदेशी हो नूट ले जाए,
 जैसे नूट के व्यवसाय पर भारत
 का स्वतंत्रता (monopoly)
 होने पर भी हमें कोई लाभ नहीं
 होता। क्योंकि नूट के सब काम
 रखने विदेशी लोगों के ही आधीन
 हैं और इनके पुनः एक वि
 देशी ही है। नूट को मिले
 भारत में 200 के लगभग है।
 इन सब में पाप विदेशी पूँजी
 ले लगी हुई है। इस प्रकार साथ
 तुलना विदेशी के स्वतंत्र नूट
 ले जाते हैं। अब सब
 Planter भी उभरे हैं।
 अतः यदि Protection द्वारा
 लाभ के व्यवसाय को नष्ट हो

विदेशी

तो उस से भारत को क्या लाभ होगा
 'सर विद्वतदासदाशर से कहते
 हैं कि "हम यह विचार किये
 बिना नहीं रह सकते कि जब तक
 भारतीय व्यवसाय (Industry)
 ही मिट्टी का तेल, कोयला, सोना,
 तथा बाँकी आदि खनिज पदार्थों
 को उठाने में समर्थ न हो तब तक
 हमें ले नीचे ही रहने देने चाहिये
 और भारतीय व्यवसाय को उन्नति
 स्वदेशी पूँजी से को जाय"।
 इस प्रकार से विदेशी पूँजी को
 भारत में आने से भारतवासी को
 कोई लाभ नहीं। विदेशी पूँजी
 द्वारा यदि भारतीय व्यवसाय में
 मछल में सब राशियों से भी अधिक
 उन्नत होजायतो भी कोई लाभ नहीं।
 इसके बजाय इस प्रकार नितनी
 अधिक व्यवसाय बढ़ेगा हमें उतनी
 ही अधिक होने होगी। क्योंकि
 पूँजी तो सब विदेशी को
 होगी और कारखाने में
 पदार्थकारों भा विदेशी ही होंगे।

केवल ८ आने वाले मजदूरों का
 रलोप होगा। इस उद्देश से हम
 क्या मिलेगा? केवल मजदूरों
 को ८ आने। एक मैनजर को
 बेतम ५०० से लेकर ८-१०
 हजार से भी अधिक होता है।
 प्रमियों का वेतन ८ आने या
 १० आने ही होता है। यदि प्र-
 मियों का वेतन १ प्रतिदिन
 और विदेशी कामगारों के एक उच्च-
 पदाधिकारी का ५०० मासिक
 भी मान लें तो भी जब एक
 भारतीय को ३० मिलेगा तब
 एक विदेशी को ५०० मिलेगा
 क्योंकि एक विदेशी लगभग
 २० गुणा बेतम वेतन के रूप
 में ले जायगा। इतना ही नहीं,
 पूंजी भी विदेशी ही होगी हुई है
 और उस व्यवसाय का लाभ भी
 विदेश में ही चला जायगा।
 जैसे जूर व्यवसाय का हाल हुआ
 यूरे के दिनों में जूर के व्यव-
 साय में २००/ से भी अधिक
 हुआ परन्तु सब व्यर्थ
 विदेश गया। उद्योग

की से अंग्रेज को जाती है कि
 Protection लागू करने से कुछ कुछ
 काह के लिये कीठकीई होगी।
 भारतीय व्यवसाय को उन्नति
 के अनन्तर सब सामान स-
 स्ता हो जायगा। तुम्हारा जो
 चन विदेशी सामान को द्वारा
 विदेश को खिंचा चला जाता
 है वह बन्द हो जायगा। निम्न
 यदि विदेशी पूंजी द्वारा बड़े हुए
 व्यवसाय को लाभ हुआ तो उन
 विचार उपभोक्ताओं को क्या
 लाभ? उनका चन तो अब
 पूर्व से भी अधिक विदेश को
 जायगा। निश्चित कीठपान के
 असमते ने कहा था कि भारत में
 व्यावसायिक उन्नति का विचार
 करते हुए यह ध्यान रखना चाहिये
 कि -
 (क) कच्चा माल अपने देश का हो
 काम में लाया जाय।
 (ख) इसके लिये पूरा प्रयत्न क-
 र जाय कि इनका लाभ भारत
 में ही रहे।
 (ग) यहां नये व्यवसाय चलाये जाय
 इसलिये Protection लागू कर-
 य सरकार को ध्यान रखना चाहिये
 कि भारत में विदेशी पूंजी न आ-
 सके।
 'अप्रुसी'

અમર હેઠળ

સામાજિક ને ઉદ્યોગિક રીતે પણ સમાજની
મજબૂતાત નિતવડે ઉઠીને જો જાયી. સ્વતંત્ર
-શુદ્ધ સમાજ વિશ્વગત દુસ્ત કાલાત મનના
કુદરત અર્થિક ને ભૌતિક મુશ્કેલીઓને
પાલી પ્રગટ દેવા ગયાયા. સમાજના
મુદત કટકાતીથી-મટ્ટ પડે છે નિર્મોલક
પુનઃ ને મુશ્કેલીના અવગત મનના વિચાર
વિચાર સ્થાન ઉદ્યોગ વાસનાના વિચાર
મિતેલી લગાવને મળે છે. દુશ્વરીથી
પડેલી સંસાદ વાતચીતોને રૂપીથી
જોડેલીથી જાગૃત ઉત્તમ સ્થાન દિવા
જાય પા. ઉત્તમ સ્થાન પુનઃની જો
લિવાય નેજાને નીચે પા. મહાસંસ્થા
કુદરત દિવસના પા. જો મહાસંસ્થાના
જી ને કદનીય કરવા છીએ. જોર
જનના ઉત્તમ પા. ઉત્તિભિલિવોના
સમાજના નિર્મિતે લાખોને જોડે

સમાજનાની આર્થિકી કાર્યકારી.

સમાજના નિર્મિતે ને સમાજની ને સમાજ
માનવ વડા માનવ પરિશ્રમ ને સિદ્ધ
દુખ પુલીત હોવા પા. નિર્મલ અધિવત
નીચે જોડી ઉત્તમ પા. ઉત્તમે માનવ
ને સાદા સમાજના નિર્મિતે માર્ગ માર્ગ. સિદ્ધ
પુનઃની ને પુનઃ પા. ઉત્તમના મિત
મિતના પા. ને સિદ્ધાન્ત. ઉત્તમ
ની પુનઃની ને પુનઃની ને સિદ્ધિ.
આવના પુનઃના વે સમાજનાની
વિદ્વાનના રીતે. આપ ઉત્તિમાના
જો. જો તાર આવને લાખી જનર
ઉત્તિમાના વરિચય દિવાહી. માનવિક
ને જાગૃત કરને સેતક છે. આવને
જાગૃત કરને

પુનઃ

જો

ਦਿਖੀ ਲਾਇਲ ਸਮੇਲਨ

ਜਿਲਦ ਮੇਂ ਛੁੜ ਜਾਏ ਜੀਵੇਂ ਪ੍ਰਮਾਣੀ ਦੁਹਾ
ਪ੍ਰਮਾਣੀ ਵੀ ਇਸ ਖੇਤਰ ਮੇਂ ਅਧੀਨੀ ਨਾਪਾ

ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਪਾ । ਪਾਪਾਨਾ ਸਾਧਾਵੀ

ਜੀ ਤੇ ੧੦ ਸਾਧਾਵੀਕ ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ

ਪ੍ਰਮਾਣੀ ਦੇਸ਼ਾਪਾ । ਦੁਹਾਵੇਂ ਜਾਨ ਸਾਧਾਵੀ

ਜਿਲਦਾਨਾ ਕਾਸੀ ਗੁਰਮਾ ਹੁਰਮਾ । ਜੀਵੇਂ

ਪ੍ਰਮਾਣੀ ਜੀਵੇਂ ੧੦, ੧੧ ਪਰ ਕਾਸੀ

ਪ੍ਰਮਾਣੀ ੧੦, ੧੧ ੧੨ ੧੩ ੧੪ ੧੫ ੧੬ ੧੭ ੧੮ ੧੯ ੨੦

ਪ੍ਰਮਾਣੀ ੨੧ ੨੨ ੨੩ ੨੪ ੨੫ ੨੬ ੨੭ ੨੮ ੨੯ ੩੦

ਪ੍ਰਮਾਣੀ ੩੧ ੩੨ ੩੩ ੩੪ ੩੫ ੩੬ ੩੭ ੩੮ ੩੯ ੪੦

ਪ੍ਰਮਾਣੀ ੪੧ ੪੨ ੪੩ ੪੪ ੪੫ ੪੬ ੪੭ ੪੮ ੪੯ ੫੦

ਪ੍ਰਮਾਣੀ ੫੧ ੫੨ ੫੩ ੫੪ ੫੫ ੫੬ ੫੭ ੫੮ ੫੯ ੬੦

ਪ੍ਰਮਾਣੀ ੬੧ ੬੨ ੬੩ ੬੪ ੬੫ ੬੬ ੬੭ ੬੮ ੬੯ ੭੦

ਪ੍ਰਮਾਣੀ ੭੧ ੭੨ ੭੩ ੭੪ ੭੫ ੭੬ ੭੭ ੭੮ ੭੯ ੮੦

ਪ੍ਰਮਾਣੀ ੮੧ ੮੨ ੮੩ ੮੪ ੮੫ ੮੬ ੮੭ ੮੮ ੮੯ ੯੦

ਪ੍ਰਮਾਣੀ ੯੧ ੯੨ ੯੩ ੯੪ ੯੫ ੯੬ ੯੭ ੯੮ ੯੯ ੧੦੦

ਪ੍ਰਮਾਣੀ ੧੦੧ ੧੦੨ ੧੦੩ ੧੦੪ ੧੦੫ ੧੦੬ ੧੦੭ ੧੦੮ ੧੦੯ ੧੧੦

ਪ੍ਰਮਾਣੀ ੧੧੧ ੧੧੨ ੧੧੩ ੧੧੪ ੧੧੫ ੧੧੬ ੧੧੭ ੧੧੮ ੧੧੯ ੧੨੦

ਪ੍ਰਮਾਣੀ ੧੨੧ ੧੨੨ ੧੨੩ ੧੨੪ ੧੨੫ ੧੨੬ ੧੨੭ ੧੨੮ ੧੨੯ ੧੩੦

ਪ੍ਰਮਾਣੀ ੧੩੧ ੧੩੨ ੧੩੩ ੧੩੪ ੧੩੫ ੧੩੬ ੧੩੭ ੧੩੮ ੧੩੯ ੧੪੦

ਪ੍ਰਮਾਣੀ ੧੪੧ ੧੪੨ ੧੪੩ ੧੪੪ ੧੪੫ ੧੪੬ ੧੪੭ ੧੪੮ ੧੪੯ ੧੫੦

ਪ੍ਰਮਾਣੀ ੧੫੧ ੧੫੨ ੧੫੩ ੧੫੪ ੧੫੫ ੧੫੬ ੧੫੭ ੧੫੮ ੧੫੯ ੧੬੦

ਪ੍ਰਮਾਣੀ ੧੬੧ ੧੬੨ ੧੬੩ ੧੬੪ ੧੬੫ ੧੬੬ ੧੬੭ ੧੬੮ ੧੬੯ ੧੭੦

ਪ੍ਰਮਾਣੀ ੧੭੧ ੧੭੨ ੧੭੩ ੧੭੪ ੧੭੫ ੧੭੬ ੧੭੭ ੧੭੮ ੧੭੯ ੧੮੦

ਪ੍ਰਮਾਣੀ ੧੮੧ ੧੮੨ ੧੮੩ ੧੮੪ ੧੮੫ ੧੮੬ ੧੮੭ ੧੮੮ ੧੮੯ ੧੯੦

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ
ਪ੍ਰਮਾਣੀ - ੧੦, ੧੧, ੧੨, ੧੩, ੧੪, ੧੫, ੧੬, ੧੭, ੧੮, ੧੯, ੨੦

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜੀਵੇਂ, ਪ੍ਰਮਾਣੀ ਤਾਨਾਸ਼ਾਨਾ ਜੀ

ਜਾਗ ਸਿੰਘ

दि. १२ मार जवनो करम नस दि. १३
 उम्मीहल १२ वी जाय उत्पन्न अनुपिण्डे
 उ. दुष्पादत्त जी ननु देवने जी डिगीय
 भागता बिरोध किया। उमेर जी हई
 बिरोधी सत्ताये । सम्पत्ति ली जाये
 पर (भाग्य स्वीकृत हुआ तथा (१)
 भाग उम्मीहल हुआ । ददन्मर
 प्रभव सं. ५ गु. अर्धदेव जीने उम्मीहल
 किया । गु. सिन्धुपदत्त जीने सम्पत्ति
 किया । गु. अर्धदेव जीने कर्णेश
 भागो का परम्पर बिरोध दिखाय।
 सम्पत्ति लेने पर पुरान प्रमाण स्वीकृत
 हुआ। प्रभव सं. ६ पर गु. जीनदेव जी
 ने तिरिह करत हुआ “दिगी” के
 प्रमाण पर अर्धदेवनागरी” न रहने
 जने पर उम्मीहल किया। सं. लक्ष्मण जी
 ने “दिगी” चेरीसीक बताना।
 प्रभव सं. ७ गु. रन्तु जी ने सं. लक्ष्मण जी
 प्रमाण पर उम्मीहल किया । प्रभव सं. स्वीकृत
 नीति हुई।

[illegible]



३५५

८६ प्रति १०० ३० ३५००० - १५ ३५०००
 १००००० - १०००००
 १००००० - १०००००

10

विजय - वैजयन्ती ~



संयुक्त देनिक म हा मि पाल म



३११



संयुक्त देनिक
म हा मि पाल म

३११

१



तन की दुति श्याम स्मोह लोचन
कज्ज की मंगुलतर्हरै,
अति मुग्ध सोहल धूरिभे
छनि भूरिअनंग को दूरिघरे ॥
दमके दुतियां दुति दामिनि ॥
बिलके कलबाल विनोदके,
अजयमे के बालक चारि सदा
मम मानसमदिर में खेरे ॥



30. प्रविशति १९८२

स्टेज पर

ਗਣਧਰਮਾਲਾ ਪਾਠ ਦੇ ਧਾਰੀ ਉਠਾਏ, ਰੰਗਮੰਚ
ਪਾ ਨਵ ਨਾ ਉਠੇ । ਨਾ ਚੜ੍ਹ ਭੈਰਵ
ਹੁੰ ਭੁਭਕੀ ਦੇਵੇਸ਼ੀ ਸ਼ਿਵਾਸੀ ' ਜਿਯ
ਭੋਯਾਧੀ ਅੰਗੀ ਸ਼ੇਰ ਪਾ ਅਵਤਰਿਓਈ ਹੈ
ਅਗਲਾ ਫੁੱਟਾਯਾ ਭਾਵੇ ਦੇ, ਲਿਖ ਪੁਰਾਣੇ
ਭੋਯਾਧੀ ਸ਼ਿਵਾਗਧਾਨਾ ਅੰਗੀ ਅਭੂਚਿਤ ਨ
ਲੋਗਾਂ ਪਰ ਧਨ ਦਾਖੀ ਲੋਗ ।

गतबर्द्ध 'बैजयन्ती' आखोसे
ओर में ईदृषीत बंगाल के हृदय पर
जाइ निरन ने 'बंगाल औडिप्रि' द्वारा
पुष्टा क्रिया था इत आरगदेशाधीन
नवीन ओजना फैल रही थी नूतन चैत-
न्य प्रवाह प्रवाहित हो रहा था, नरिस्फूर्ति
की दीप्ति में दिगुमान हो रहा था, दलके
भरस गौरव की दृष्टा के लिए तब भावों से
देश उज्ज्वलित हो रहा था। इस हलचल
आन्दोलन ने प्रकृत सम्बन्धन को ज-
न्म दिया। नेता लोग कइना जमा
हलचल देश के विभिन्न दलों के ओर
नवीन सुनौता पाता न जमा सके।
मुताओं ने जोखित कर दिया कि इस
समय गच्छता सम्भव नहीं है।
समानता इस ओर बढ़ने वाली
पार मर्यादति से बचना पड़े है

देश की जीवित जागृत शक्ति, उनके
मात्र स्वराज्य दलों की शक्तिवर्ती पर।
म. गांधी ने इस समय स्वराज्य दल
की शक्तिवर्ती अपना कार्यप्रणाली।
स्व. देशवापुस सहाय मिलाने के लिए अपने
ने चरबी सुत संतोषि का के स्थापन सब
को स्थापन दिया। सब दलों को केलांगन अपने
का निमंत्रण दिया पर यह पाथनी बंदरे
कागों पर। आशाजनक फल न हुआ।
केलांगन की कांग्रेस कांग्रेस के इतिहास में
कई दृष्टियों से अर्धवृत्त। म. गांधी समा-
पति थे। अतः जैने निक, व्यक्तित्व लोकार
किया गया। व्यक्तिगतता की वेदी पर
सब सिद्धांतों का बलिदान किया गया।
आर्य समाज प्रगति और विवेक बुद्धि को
पुनर्निर्दिष्टों ने गांधी मानि पर चला दिया।
कांग्रेस के बिना ही दल स्वराज्य दल ने भी
सूचक सब हे मतपत्रिक बड़े इसे स्वीकार
कर लिया। कांग्रेस का उत्कर्ष बढ़ा गया।
कांग्रेस के आगे में स्वराज्य दल ने अपने
न बिजय प्राप्त की। भारत की नयी समा-
ज, समापति निर्वाचन, बंगाल की नई
जैने का आलोचना करना, स्वराज्य दल
हो लेने का प्रस्ताव पास करना।
के समय ही विजय जैने के लोकार
दल का मोक्ष बड़ा रहे था वसंत बंगाल
और युद्ध प्रदेश के समापति निर्वाचन
में ही की दल भी कम शानदार
में ही। पर भी दल के एक एक के

जाते हैं स्वराज्य दल की उद्बुद्धता बरत कर आते स्वराज्य दल के पुद्गल नेला कमी शनो और कनेरियो के समझा होना अनुचित नहीं समझते। *Monstrable Co-operation* से समझा श्रवक पूर्णतः श्रेष्ठ प्रतिक्रिया के लक्ष्य से दूकावते हैं। जिनके एक दिन दुका दिया था, जिन पर देने वालों को देखा ही कहा जाता था ऊँची त्याज्य वस्तुओं को लेने के लिए स्वराज्य दल के सत्य बगल करने से नहीं झुकते। पछा को गेस जमेटी के आच्छे शनने स्थिति बदल दी है। स्वराज्य दल के हाथ में पूर्ण शक्ति देकर सकलता का मार्ग बंद कर दिया है। चरभने का प्रवेश भुलक देकर सल के आने के लिए दूर खोल दिया गया है। यह परिवर्तन स्वराज्य दल की तोद बढ़ने वाला अवश्य होगा पर अन्तरीय शक्ति को बढ़ाने में सहायक न होगा।

खिटे से सहयोग की चर्चा सलभर रही है। इस सहयोग को प्राप् करने के लिए स्व देशबन्धु ने राष्ट्रीय स्वतंत्रता के भण्डे को भी भुका दिया पर वायसराय की यात्रा और उनको भारतभूमी प्रकाशित बाधुता नतीजा जो प्रकाशित हुआ उससे भी अपनी भूलन समझ कर समझात पूर्ण सहयोग को बढ़ने में अभी तक चिन्तित हैं।

असहयोग को स्वा के लिए दफना दिया गया है। उसकी कद पर आज सहयोग का भण्डा दे रहा है। कलकला को गेस के समय में नया अध्याप प्रारम्भ हुआ था उसका आग परताम हो गया। आज देश सहयोग की आवाज से गुंज रहा है। स्वराज्य दल के अन्तर्मुख सहयोगात्मा स्वाहा और अहंता दरे रहे हैं।

श्रीमती बेनेट ने एक कौमल के रूप के लिल के रूप राष्ट्र की उच्छा दयक करने का लेकलप किया। बुद्धि साप्ताज्य की रोज छात्रों के भार को स्वाधीनता को मंदिर निमार्ण हो। भारतीय स्वराज्य का नृणा कले कले सरही जिन को आनंद है। उने के लिए इस पर विचार करत। सत्यव्यंथि वांग है। पर जो ब्रिटिश राज में भारतीय सुवशा निदेशना चाहते हैं स्वराज्य की शाखा के दो फलों में छिन और भारत को देखना चाहते हैं उसका निश्चित कर स्वागत नहीं करने न समझना समझ कर रहे हैं। महाप्रभुओं द्वारा ठकरी कर लें जने के अपमान से बचना चाहते हैं।

साधुपुत्रिकता के विषय हकी सत्य के बोध से बहारी शान्ति की भीषण टिलाने वाले

हिलते रह गए । पर विनाशक क्षे-
टकगते में न रुकी विश्वविकृति
का उपवास निरर्थक सिद्ध हुआ । एक
ओर क्षणिक पावने में न आ उद्यारण
किया जा रहा था दूसरी ओर हिरण्यो
जा रहे थे और उस द्वारा सब दुसरे का
गला घोरा जा रहा था । आज स्वता
की प्रतिमाने भी इस रक्तप्रवाह के स-
न्मुख में टटना ही उचित समझा है ।

जितनी वाणी के प्रभाव से शत्रु
उठ बैठे, जागरण के प्रभाव में जितनी
ओजस्वी वाणी और अपूर्व आत्मबल
ने शत्रु को ब्रह्मसिद्धि का उत आत्म-
दग्नि धकाये उत महान आत्मा के चर-
णों में लपके ने मधुरा नगरी में शक्ति
होकर अथवा शत्रु पुष्पाञ्जलि चढ़ाई ।
यह शत्रु का प्रवाह महर्षि के अथवा
यियों के स्व सन्मुख में उलर्ति
कर देगा वा संसार के सेवक सब
सर्वशक्ति यह भविष्य बताया ।

जितनी वाणी पूर्ण बलिदान पर देश-
कुल था संसार दोनों तले उगली सब
कर उसे ही कायप्रदेश रहता । म-
गम्भीर अपने शत्रु की सन्मुख में
देहकर फुलेन समस्त धर्मों और
बायकीम का कुछ समाप्त होगा ।
सफलता का ताज बौरों को पर न
दिया गया । इस ओर अथवा
के बीच में यही एक प्रकार
को उज्ज्वल किरण है ।

जितने पर देश भव कर सकता है ।

X X X

हमारा बिलकूल अथवा हमारे
जीवन का मूल्य क्या गया इसकी कथा
बड़ी दृश्य प्रकाश है । प्रजापति की कथा
लिखने के लिए इस लेखनी में तमस्य
नहीं है । प्रजापति की कथा लिखने जा रहे
हैं, अपने स्वतंत्रों से वञ्चित किए जा रहे हैं
मनुष्य मान के अधिकार से भी वञ्चित
किए जा रहे हैं । पर हम लोगों को इस तर-
फ ध्यान देने का ठानसर ही नहीं मिल-
ता । शशिधर सिंह बिलकूल है । ११ अल्-
बर की लभ्य दीन भारत की पुष्ट पर-
मात्मा के दरबार में मुकामे जा रहे हैं ।

X X X

बरणर उठा, आकाश का रंग पीला
हुआ, संसार में सम्मान कुछ होने बाला
है बन्धुओं का धुआ भी उठा, उद्धान्त
महासागर का शान्त जल थुकाभी
हुआ पर शत्रु जो शत्रुओं को मानने के
लिश उठे थे नायकों के धर्म के कारण
आपत्ति में ही चल पड़े । बन्धुओं के दुर्गों का
हमला अपने साधियों पर ही हुआ ।
शत्रुओं की जाल काट गये । शत्रु
का स्वतंत्रता भूय फिर घनघोर बाढ़ों
की ओट में खिच गया । सुनहली किरणें
जिससे अलक्ष्य पर्वत मानव की बर्फीली
चोटियां चमक उठी थी और हिमालय
की हिमालय पर्वत धवल शिखरों पर
प्रति चिम्बित होकर बर्फ के
उत्पन्न कर रही थी बिलीन होगी

X X X

भूषण सागर के द्वार पर स्थित
मोक्षोदये विष्णु स्वरूप भूषण करीम
की ललाटा पर प्रबल तेज से चमकती र-
ही। विनोदों फूल व संयुक्त बल भी
समस्या न कर सका। ~~विष्णु~~ तेज मंद
होगा है पर और रागा प्रताप की चर्चा
पर्वतों में बासकर स्वतंत्रता की ओर उ-
पने देश के गौरव की रक्षा कर रहा है
स्वनिज पदार्थों का लोभ, रंगियार बन्दर
गाइका मरल, भूषण सागर का प्रमुख ही
अकेला शक्ति का कारण हो रहे हैं। रिफ्लेग
रणचण्डी की पुजा अपने दृष्ट के गर्भक
से शिर-पुष्पों से कर रहे हैं। यह व्यर्थ नि-
जार्थग ।

रशिया के दृष्ट पर विरल दान गज-
रहा है। मोक्ष का आकृति किजारा की
की अपनी रक्षा के लिए आवश्यक सम-
झते हैं अपनी जान देकर उसको लेगे।
पुत्र के युक्त करिब है मरने मारने को
अच्छा है। विरल अपने लोगों को भी परवा
कर कर उसको लेने के लिए अपने जमी
लेने को ~~अपमान~~ करने की आशा है
है। विरल भारत पर तथा रशिया के अ-
पमान के लिए तय वेले के कर
लेने के लिए अपने चतुर्जगत् की पानी
की तरफ बहाते को जबरन है। रशियों
कोरी जपोते देव कर विरल को मरने
को बिल उपर गया है

सब अपने पांसे में कर रहे हैं। जमीनी
मोक्ष तत्त्व का भी कससे हाथ मि-
लाता है तो जमीनी विरल ओर फूल की
ओर काट कर से देवता है। लब्धाल
में बैठ कर मध्य युगों की स्वाध्याय नामना
की जा रही है। शोनों को कुलो के लिए
शान्ति और उष को ~~कुलो~~ जल तेय
किया जा रहा है। विरल विरल विरल
जमीनी से व्यापारिक सम्बन्ध कर रहे हैं। जमी-
नी फूल-गायको बेल कर निब राता पुकर
कर रहा है ~~जल~~ बिल बंधा रहा है।

दूर दूरी जमीनी विरल मन्त्रिण्यारपी, आ-
त्मवादी लोग लव हव लसे कर रहे हैं कि
२५ से २६ के बीच में प्रधान ~~दूर~~ लवे का
ला है। सुब के दिल पर किता है ~~लव~~ लव
की पूती धा अयुक्तता से कर रहे हैं। हव के
लगात के लिए विरल ओर अमेरिका नर
जलोत बना रहे हैं। परतंथ जाति को
भक्ति जन्म रत्न धार से लगात करने को
उत्सुक है। रशिया धीरे धीरे की नीत का
लेकर रहेगा या ठीक भाग्यो धा मालि
व ~~लव~~ लव का निर्णय इस युद्ध में होने
नाला है।

ये सब विरल वर्जनी की नीति के लिए
ले लव लव निरल नीति मार्ग में पर
कर रहे हैं। भाग्यार लव लव ।

गगनागणमे

यणोक्त— दो मास के बाद सब कुल-
 भाई अर्थात् २४ वर्ष के माघ शुक्ल
 के दूर दो में कुलमाता के चरणों में अर्घ्य
 भी भक्षण सुगन्धद्रव्य चढ़ाने की अवस-
 र है। हम भी इस अवसर पर अपनी तुल-
 सिन्धु अर्थात् सिर हाथ बाधा के चर-
 नों में समर्पित करते हैं। सब कुलपुत्र
 मेन्दुवा मिलाकर बुलकी रक्षाकाज
 मण्डल रहे हैं और तुलमौल की रक्षा
 के लिए बिजय याचका उपज, नन्दर रहे हैं
 लज्जकिय दुर्गिजय के जयसी 'सा
 ध्यानी रहे। तुलमौल रक्षा का आज
 का धन्य वृत्त कपुओं का चण्ड हो। यह
 हमारी हार्दिक कामना है।

अपूर्व विमोक्षोद्देशः जातिधर्मोत्तरे संस्थाप्यो
 मेऽपि विमोक्षोद्देशः जातीय पक्षे अपि
 जगत्सिद्धिर्मेव सामर्थ्यं होता है। सम्पूर्ण
 उत्साह शक्ति और समर्थता उद्देशनि
 विद्या जाता है। विपमालोकात्पौष्ट्यभी
 भाग्योद्देशे ने निरुद्ध केला समासे है कि
 कि जगत्सिद्धिर्मेव सामर्थ्यं होता है। उत्साह
 और उत्साह उत्साह होता है। अलावतकी
 अधिपत्य शक्ति उत्साहे आने के लिये
 कटन ही एक ही। पवित्रता के निर
 सुख में अपूर्व विमोक्षोद्देश दिया गया है इस
 समासे के आशय पर अपने स्वयं
 भावों के त्याग कर शुद्ध हित से उत्प्रे
 कुलद्वेषी सम्मिलित हो। पर अपूर्व
 समासे नृत्तनीका

की सूचना हो, कुल के मीरा से
अभिषेक मीरा वरिचन करके
नरेश महल हो यह हुआ है।
उत्तिष्ठत है।

शोचनीयम् — आज मनुष्य के
मन्दिर में मनु पुत्र के लिए उपाय
हूँ है पर पुत्र के साधन सब निन्द
शी हैं। अपने नेत्र की स्मृति जिन सा
धनों और जिस रंग से कर रहे हैं
नष्ट सर्वथा निन्दणी नहीं तो उसमें ह
म्राश कुछ नहीं है। उनमें से ये सीक
नीज नहीं है जिसको हम अपने कर
सकें। जिन को हम देखी देखें कर
ते हैं उन के पुत्री हमारे दिल में आ
कर का भाव नहीं है, उन को सीख
ने के लिए हम समर्थ होने को उद्यत
नहीं हैं। मान कि वे भाग्यविक्रम नहीं
रहे पर क्या हमारी नव नवोन्मेष श
क्तिनी पुति भा और कल्पना शक्तिने
जोपाद लग्न नहीं है जो पलक
नी इन को आप्युनिक और वास्तविक
आत्मिक तथा भौतिक कनन रखें
जिन क्षेत्रों के पुति हमारे दिल में उल
है, यद्यपि वे हमारे चित्त की उन्नत
नहीं हैं, न भाव तीव्र होंगे न ही
पकड़ें, उन के कुछ क्या हम की
नी प्रतीति जा सकती है? नष्ट
क्या उन से सम्भव है? यद्यपि
वास्तविक सत्य में प्रत्येक भिन्नता
कर इन की वास्तविकता सिद्ध
की जा सकती है पर प्रतीति
सत्य है कि इन का स्वयं भाव
नहीं है। इन देखने के बाद

आपने विषय में

[illegible]

व्यवस्थापक
नेरु नाथ

शंकर सन्देश

“मित्रज वैजयन्ती” की विजय दुन्दुभी कुत में ही नहीं अपितु सबका विश्व में व्याप्त हो! दुर्मिन्तभा-
रतमल पुनः विजयी होकर भवनी नन्दी के सुपुत्र
महोदय विश्व को सुख कर ले कर सबकी विजय
“मित्रज वैजयन्ती” फिर सुख गगन में व्यह्व उठे।

मि जय हो ज गंगा

गुरुकुलीय 'ओलिम्पस'

पर क्रीड़ा का विराट समारोह

२०-६-८२

२१-६-८२

गुरुवार

शुक्रवार

१० बजे तक राष्ट्रीय भंडे की स्थापना।

आठ:० से १०:३० तक

बन्दि आतंरम्

वृक्ष पर चढ़ना

कुलगीत

२०० गज की रौंड़

रखे लें

बोरी रौंड़

० से १०:३० तक आतः

लब्धिम्पुस

तेज चलना

गोला फेंकना

गोद फेंकना

सिंह तैरी

बिन्दू तैरी

उड़की

तमेड रौंड़

कुरली रौंड़

चार दंग की रौंड़ (प्रथम बार)

चम्पच बौड़

मैउक रौंड़

अखी रौंड़

अन्ध यड

सध्यान्वेत्तर

२:३० से ४:३० तक

सध्यान्वेत्तर

२-१० से ६ तक

तद्विया मुड (अन्तिम)

चार दंग की रौंड़ (अन्तिम)

सकरी रौंड़ (Pick-a-bag Race)

{ घाटा रौंड़ (अधिबारी बगीची)
(Mandicap Race)

बाधा रौंड़

लम्बी दूड

अंची दूड

दड़प्पा दूड

तद्विया मुड

तैरी रौंड़

बोरी मुड

१-१०-८२

शनिवार

० से २ तक आतः

सन्मुख्य (पुट गोल)

अन्त्य (और उपग्राम वर्ग)

निर्णय - न अमर

प्रकाश १३	चारोंग की हैउ	चम्मच हैउ	गैउऊ हैउ	हउपा हउ	अन्ध यूऊ
प्रकाश १३	मेगेनु बल	इउ सेन	देमरु	मुदेनु	मगीर
असदर	जमरिन	मउयु	मुदेउ	फरिन	हदिमेश
हदिमेश	मलराम	जमदेन	असदर	हदिमेश	जमरिन
मलराम	रगपीर	इरुपु	हदिमेश	मलराम	रगपीर
रगपीर	हदिमेश	हदिमेश	जमरिन	रगपीर	नदेउ
यसदर	नरेनु	मुदेउ	मलराम	नरेनु	जमरीश
अमरीश	मेदपुमरा	असदर	रगपीर	जमरीश	असदर
नरेनु	मेगीराम	जमरिन	नदेउ	मुदेनु	मेदपुमरा
जमरीश	मीमसेन	मलराम	इउ सेन	जमदेन	मीमसेन
मेगेनु	सिखरा	नरेनु	जमदेन	सखरि	मीमसेन
मेदपुमरा	इउ सेन	मेदपुमरा	सखरि	मीमसेन	इउ सेन
मीमसेन	जमदेन	मेगीराम	मीमसेन	देमरु	इरुपु
सिखरा	सखरि	मुदेनु		मीमसेन	मीमसेन
इउ सेन	देमरु	सिखरा			अमरीश
जमदेन	मीमसेन	सखरि			
सखरि	मुदेनु	देमरु			
देमरु		मीमसेन			
मीमसेन					
अमरीश					
मुदेनु					

— सूचना —

आवश्यकतापुसार इन नामों
में वृद्धि भी की जा सकती है।

मं. वाग्विधिनी सभा का भावी कार्यक्रम

आखीर व्यवस्थापक सभा की बैठक	२६ अक्टूबर
जातीय महासभा	दिसम्बर का प्रथम सप्ताह
जन्मोत्सव	दिसम्बर का द्वितीय सप्ताह
कविता सम्मेलन	गुरुमुख बार्थिकोत्सव पर
वाद विवाद का अधिवेशन	२ नवम्बर

वाद विवाद का विषय - "जनतन्त्र और एक तन्त्र राज्य में कौन प्रेक्षित है?"
नोट - इस कार्यक्रम में परिवर्तन भी किया जा सकता है।
गुन्नी

अच्छा

५३५

6170

५५

灵心

77

नलराज	उरेख	नलराज
रुगपीर	नलराज	रुगपीर
मरेख	रुगपीर	रुगपीर
हरिमंश	मरेख	देवदत्त
इन्डलेन	हरिमंश	इन्डलेन
भीमलेन	इन्डलेन	भीमलेन
जगदेव	रुगपीर	भीमलेन
रुगपीर	देवदत्त	रुग
देवदत्त	भीमलेन	
भीमलेन	जगदेव	
	रुग	

सभाओं के सूत्रधार

बालविनिर्मुक्त

$$-27.5 - 1.577(1.4) = -29.7$$

अमनीन्दु (मंत्री)

शिवप्रसाद (सजीव)

नरेन्द्र (उपमंत्री)

सगरसिंह (उपमंजी)

का. वि. सं. २२५५

चन्द्रगुप्त

वृष्णचन्द्र १४

राजस्वरूप

इन्द्रसेन १४

विष्णुदत्त

ओष्ठनाश

इन्दुवन १४

नरेन्द्रनाथ

निरुद्धमरेण

निरञ्जन ६।१

क्रीड़ा पुरस्कार सूची

खेलें			
तुली होइ	३	५	
चमच होइ	५		
त्रउम होइ	३	३	
कसी होइ	४		
अन्य पुहु	३	५	
२० गज की होइ	३	३	
हफ पर चमक	३		
मेरी होइ	३	३	
तमेइ होइ	३	३	
तेरी होइ	३	३	
चार गज की होइ	३	३	३
शाली होइ	३	३	
घास होइ (Hand-craft)	५		
नाचा होइ	५	५	५
मेला प्येनना	५		
तेज चलना	५		
गैद प्येनना	५		
फिर तेरी	५	५	
बिजय तेरी	५		
पुननी	५		
लकी दूर	५		
अचौ दूर	५		
हड़प्पा दूर	५		
तानिया पुहु	५	५	
मेरी पुहु	५	५	
कुइली	५		
कविता	५		
शान्दना	५		
हड़प्पा			

सम्पादक की डा.

(राजपुर के, बालिका के, प्राम्)

सेवा में —

संयुक्त राष्ट्रीय और मजदूर
रल के सदस्यों के —

प्रिय बन्धुगण !

आप के सहयोग और
नर्तन्य निष्ठा की नैदीलत राष्ट्रीय रल
और मजदूर रल का गौरव व्यक्त रहा।
उस की मान सम्मान सुरक्षित रही और
रल के रूल लेने में सफल हुआ।

इस प्रसन्नता के समय में मैं
आप को नितीत भाव से बधाई देता हूँ।
आशा है उम्मे भी आप इसी तत्वज्ञान से
और नर्तन्य निष्ठा से रल की रक्षा के लिये
उपत रहेंगे।

भारतीय

मन्त्री

अननीन्द्र

संयुक्त राष्ट्रीय और मजदूर

रल

प्रिय बन्धुगण !

आप के हाथ में अपने निरन्तर
सेनकों के मान बढ़ने की सब से उत्तम औन्नत्य
है; वह गौरवमय आसन, वह स्वर्णमय मुकुट आप
ने हमारे रल अग्रिम हीन जनसी हाथों में रखा है।
आप की रक्षा के साधने, अपनी रक्षा के उच्छेद सम-
न्वित हुए उस ने रल और रल मर, रल अपना
नत महान्तम नरते हैं। इस निरन्तर भाव से उस
सहयोग - जिस ने हम अभिभारी हैं - को अति-
तापी है; जो हमारे से पूर्व नर्तन्य निष्ठा की आप
द्वारा प्राप्त होता रहा है। हम यथाशक्ति साध-
नी परमेश और गोरल के व्यक्त रहने में
नहर न उदा रहेंगे। फिर भी रक्षा की उत्तम
और अनवरत, सम्पन्नता और अस्मत्तता, आप
के हाथ में है। रक्षा के आप स्मारी हैं, हम मेरे
आप की आत्मा पालन करते रहेंगे। हम अपने
रक्षा के पूर्व नर्तन्य निष्ठा से तथा नर्तन्य व्यक्त
कारिणी मंडल से निरन्तर भाव से सहयोग की
कामना करते हैं। हम निश्चय से और आशा
है कि हमारी प्रार्थना सुनी जायगी।

भारतीय अनुसूचित जाति

प्रमुख (मन्त्री)

नरेन्द्र अभिनी

नानदीधरी समा

005703

could be reached, and A would be better off and B no worse off than if the redistribution had been effected by changing the price from OP_1 to OP_2 . Therefore Professor Scitovsky's test still seems to be required, but the interpretation of it is altered, it now tells us whether a good change in distribution would be better effected by the change under consideration, or by simply redistributing money. We thus have a threefold criterion

- (a) Is the Kaldor-Hicks criterion satisfied?
- (b) Is the Scitovsky criterion satisfied?
- (c) Is any redistribution good or bad?

All the possible combinations of answers may be set out in a table thus:

TABLE I

Case No	1	2	3	4	5	6	7	8
CRITERIA								
Kaldor-Hicks criterion satisfied?	Yes	Yes	Yes	Yes	No	No	No	No
Scitovsky criterion satisfied?	Yes	Yes	No	No	No	No	Yes	Yes
Any redistribution good?	Yes	No	Yes	No	No	Yes	No	Yes

Before examining the inferences to be drawn from the eight possible combinations of these criteria some further discussion of the meaning of a good and bad redistribution is needed. If we say that a move from Q_1 to Q_2 (in Fig VI) would be a good redistribution, what exactly do we mean? We mean that any purely distributional change (by which is meant the direct transfer from one individual to the other of sums of money or sets of goods) which would produce a point which is distributionally indifferent to Q_2 would be a good thing. It is assumed that there is at least one point attainable by direct transfers from Q_1 which is regarded as distributionally indifferent to Q_2 , and in which everyone is better off, or no worse off, than in Q_2 , or in which everyone is worse off, or no better off. In the discussion above it has been assumed that H is such a point—so that to say that Q_2 is distributionally better than Q_1 is to say that H is better than Q_1 . Similarly to say that Q_1 is distributionally better than Q_2 is to say that J (or some similar

ally equal, and then one gets £5 per annum more and the other stays the same, it need not be wrong to say that they are still economically equal. But this would, of course, soon cease to be the case if there were a cumulation of such shifts

point within the upper ellipse) is better than Q_2 . For consistency, it is required that if H is better than Q_1 , then \bar{J} is worse than Q_2 .

At this stage it may be helpful to introduce the device of a 'utility possibility' diagram (Fig VII consists of four such diagrams). On each axis the utility of an individual is measured on an arbitrary ordinal scale. The curves drawn show the maximum utility which can be attained by one individual given the utility level of the other. This maximum utility level depends upon what we assume remains fixed. If the set of goods, *and* the prices, remain fixed then the utility possibility curve traces out the utility levels attained by each person as direct transfers of goods are made from one to the other. A different curve will correspond to each relative price. This is the case of Fig. VI. But much broader interpretations are possible. If the prices are allowed to vary as one moves *along* the curves, then they trace out the maximum utility level possible for one person given that of the other, on the assumption that each point corresponds to a point on the contract curve as defined above. The curves then represent the maximum utility possibilities of a given set of goods. A movement along the curve results from direct transfers of money between the individuals. A different curve then corresponds to each different set of goods. On a still broader interpretation, both prices and production, and hence the set of goods, can be allowed to vary as one moves along the curve by means of direct transfers of money. A curve then represents the utility possibilities of a given endowment of factors of production and a different curve corresponds to each different endowment. In this case various assumptions can be made about the allocation of the factors of production. It can be assumed that the 'optimum' conditions of production and exchange are satisfied, in which case the curve represents the *maximum* utility possibilities. Alternatively one might take the curve to represent what would actually happen as money was shifted between the individuals, the points being determined by the actual price and output policies which would be followed by the productive units in the economy.

Which interpretation is relevant depends upon the problem being analysed. For instance, when dealing with the valuation of the national income it may be convenient to inquire into the utility possibilities of a fixed set of goods. But this is rather a special case. For any practical application one would normally be interested in the utility levels which would actually result from shifting

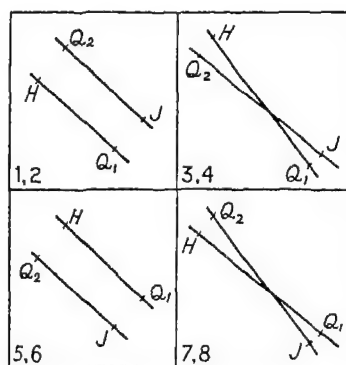
money about—in which case it is the set of factors of production, and price and output policies, which are assumed constant as a move along the curve takes place.

Whichever interpretation is used the formal properties of the diagrams remain the same. No significance attaches to the shape of the curves (this is because the utility scales are arbitrary), except that they must slope down from left to right, if they are used to analyse problems in which it is impossible to make one man better off without making another worse off. But, while the formal properties are unchanged, the meaning attached to the redistributive element of a change varies according to the determination of the utility possibility curves. Thus if it is said that redistribution would be improved by moving from Q_1 to Q_2 , that has to be taken to mean that a point on the utility possibility curve of Q_1 , which is either south-east or north-west of Q_2 , is better than Q_1 . The location of this point and hence the exact sense attached to 'redistribution being good' depends upon what is assumed to remain constant as one moves along the utility possibility curve. The closest approximation to the ordinary meaning would seem to be when the curve represents the utility possibilities of the factors of production under given price and output policies. For then we are assuming that if someone says that a change from Q_1 to Q_2 would be distributionally good, he means that a point which would *actually* have been reached by shifting money, and where everyone would be worse off, or everyone be better off, than at Q_2 , is better than Q_1 .

Each diagram is applicable to one of the four possible combinations of the Kaldor-Hicks and Scitovsky criteria, the relevant case numbers of Table I being shown in the bottom left-hand corner. In each case if the curve through Q_2 passes north-east of Q_1 , the Kaldor-Hicks criterion is satisfied. and if the curve through Q_1 passes south-west of Q_2 then the Scitovsky criterion is also satisfied. In addition, if redistribution is good (as in cases 1, 3, 6, and 8), the left-hand point on any line is better than the right-hand, and vice versa if redistribution is bad. It must be remembered that H now stands for any point in the south-west or north-east quadrants of Q_2 which would be judged distributionally indifferent to Q_2 , and similarly for J in relation to Q_1 . In what follows, any movement along the curve through the initial point Q_1 will be referred to as a 'redistribution', while any movement along the curve through Q_2 will be referred to as a 'compensation'

The question which we now seek to answer is whether a change from one line to the other is a good thing (According to the interpretation of the curves the change might be merely a change of price, as in Fig VI, or a change involving a new set of goods)¹ This cannot be clearly answered until it has been decided how free one is to move along each curve, i.e. make purely distributional changes. One can assume that no distributional changes are possible, i.e. that one cannot move from Q_1 to H , or from Q_2 to J .

FIG. VII



This needs some elaboration. It has been argued that, in the real world, complete compensation, so that no one would be left hurt by a change, would rarely if ever be possible. But if it is *not* possible to reach a point like J (in the north-east or south-west quadrant of Q_1) from Q_2 , then the formal argument is unaltered by saying that no compensation is possible, for Q_2 can, where necessary, always be regarded as the point which would be reached after all practical compensation had been paid, if it was desirable to pay it. Similarly it might normally be quite impractical to find a point like H which was attainable from Q_1 , and Q_1 can then be regarded as the point reached after all practical redistribution had been allowed for. Sometimes, therefore, the most realistic assumption to take would be that only the two points Q_1 and Q_2 are actually attainable. Let us call this Assumption *A*. But the most general case is certainly where all four points are attainable (Assumption *B*).

¹ See p. 102

Take first the assumption that only Q_2 and Q_1 are attainable (Assumption *A*). Where only two points are attainable the question whether the change should be made is of course the same as the question whether welfare would be increased. Inspection of Fig. VII shows that the answers to the question of whether the change should be made are as shown in Table II, which gives the eight possible combinations of the criteria, and the inferences to be drawn.

TABLE II

Case No	1	2	3	4	5	6	7	8
CRITERIA								
Kaldor-Hicks criterion satisfied?	Yes	Yes	Yes	Yes	No	No	No	No
Scitovsky criterion satisfied?	Yes	Yes	No	No	No	No	Yes	Yes
Any redistribution good?	Yes	No	Yes	No	No	Yes	No	Yes
INFERENCE								
Should the change be made?								
Assumption <i>A</i>	Yes	?	Yes	No	No	?	No	Yes
Assumption <i>B</i>	Yes	Yes	No	Yes	No	No	No	Yes

In cases 1, 3, and 8, Q_2 is shown to be better than Q_1 . In cases 1 and 8, Q_2 is the best of the four points. In case 3, H is better than Q_2 , but *ex hypothesi* is unattainable. In cases 4, 5, and 7, Q_1 is better than Q_2 , although, in case 4, J is better than Q_1 . In cases 2 and 6, the result is indeterminate. Thus, in case 2, Q_1 and Q_2 are both better than H and worse than J , and vice versa in case 6, there thus being in neither case a relation established between them.

The table shows clearly that neither the Kaldor-Hicks nor the Scitovsky criterion are, alone or together, sufficient for an increase in welfare. In case 4 the Kaldor-Hicks criterion is satisfied, but the change would decrease welfare. The same is true of the Scitovsky criterion in case 7. Used together they indicate a change in case 2, which could result in a decrease in welfare. Nor is either of them alone, or together, a necessary criterion. On the other hand, both the combination of the Kaldor-Hicks and the redistribution criteria, and the combination of the Scitovsky and the redistribution criteria, are sufficient (but not necessary) for an increase in welfare.

But the question still arises as to whether these criteria (which, in this case, are welfare criteria) have any point to them at all. It has been argued that where no compensation or redistribution is possible, i.e. where the criteria are criteria of welfare, they are useless on the following grounds.¹ They require that someone should make the judgement that Q_2 is distributionally better (or worse) than Q_1 —which is to be taken to mean that H is better (or worse) than Q_1 . But, it is argued, if this someone, whoever he may be, can make judgements of this kind, then he can say directly whether Q_2 is better or worse than Q_1 . Hence the criteria are redundant.² There is no doubt that this criticism would be overwhelming if it were true that our 'someone' already had well-ordered preferences between all configurations of the economic system, and if one could describe to him exactly the configuration which would result from the change under discussion. In fact, of course, people do not have such well-ordered preferences: nor would it be possible to describe exactly what goods, &c., every individual would be getting after the change, still less can we say *how much* utility or welfare each individual would be getting after the change. Given that one cannot describe the state each or every individual would be in after the change, the best one can probably do is to say that the situation would be much the same as would result from, say, transferring £100 of net income from one to the other, except that both (or all) would be better off than if this was actually what was done. If this is accepted, then even though the actual question asked is in terms of a comparison of Q_1 and Q_2 , a point like H comes in as an essential intermediary: and it cannot be said that the Scitovsky part of the criterion is redundant.

Now take the second assumption B^3 —that all four points are attainable. This is more involved because the question whether welfare would be increased by a move from one point to another ceases

¹ C. Kennedy, 'The Economic Welfare Function and Dr. Little's Criterion', *RES*, 1952/3, no. 52.

² The same criticism arises when we come to consider the 'Valuation of Social Income' in Ch. XII—where it will be further discussed.

³ These, A and B , are not the only two possible assumptions. In the first edition of this book the only set of inferences drawn from the eight cases was based on the assumption that redistribution before the event was possible—but not compensation after it. This produces for the eight cases the following answers: Yes, ?, No, No, No, No, No, Yes—as in Table I of the first edition. It now seems to me that this was a rather arbitrary assumption, as various critics have pointed out.

to be the pertinent question when more than two points are involved. Consequently the criticism discussed above does not arise, since one needs to know which is the best point, and how to reach it. The diagrams show that in cases 1, 2, 4, and 8 the best point is on the curve through Q_2 , and that in the remaining cases it is on the curve through Q_1 . In cases 1 and 8 the change should be made without compensation, in 2 and 4 it should be made with compensation. In cases 5 and 7 the *status quo* should be preserved, while in 3 and 6 there should be only redistribution. Table II again shows that neither the Kaldor-Hicks nor the Scitovsky criterion are by themselves sufficient or necessary. The combination of the Scitovsky criterion with either the redistribution or the Kaldor-Hicks criterion is sufficient—but the same is not true of the combination of the Kaldor-Hicks and the redistribution criterion.

For both assumptions only the combination of the Scitovsky criterion and the redistribution is 'reliable' (in the sense that if both are satisfied then welfare is increased, and the change should be made, whichever set of assumptions is taken). The combination remains reliable if it is assumed that compensation alone is possible, or if it is assumed that redistribution alone is possible—but it is not 'efficient' in the sense that it picks up all cases in which a change should be made.

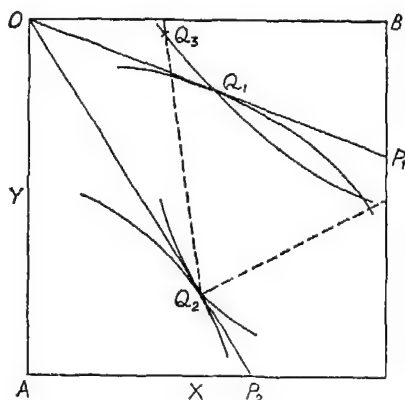
This seems to be as far as one can take the subject of the 'welfare criteria'. Before discussing their value, if any, one important limitation must be noticed. If the Kaldor-Hicks and the Scitovsky criteria conflict, that indicates that the utility possibility curves cut between the two points under consideration—and if they agree, then the utility possibility curves do not cut between the two points. But no indication is given either way as to whether the curves cut elsewhere. So long as the subject under discussion is limited to the question whether a particular change should be made, and if so whether compensation should be paid or not, or if the change is not made whether there should be some redistribution in lieu, this does not matter. But if wider questions are raised, it may matter very much. Take, for instance, Assumption B, case 4. The diagram shows that the change should be made and compensation paid, in order to reach the point \mathcal{J} . But now imagine the curves extended to the right and cutting again. It was held to be a good thing that transfers should be made from Mr A to Mr B—so as to travel from Q_2 to \mathcal{J} —and it might well be considered a good thing that

Mr. *A* should pay over still more to Mr. *B*, so moving farther to the right along the curve. But by then another intersection with the Q_1 curve could have taken place in which case the change should never have been made.

It is very necessary to bear this limitation in mind. But equally one should not be too heartbroken, for the human mind cannot in practice contemplate all the possibilities. In practice, economic policy very largely presents itself as a series of choices as to whether certain changes should be made or not. Sometimes the change is mooted for its distributional effects, in which case it is usually relevant to consider whether there are other ways of redistributing wealth so as to produce what would be regarded by the supporters of the change as an equally good distributional effect—but which might make almost everyone better off than if the change were made (as in cases 3 and 6). Or, the change may be mooted because it is thought to be in line with some vaguely conceived general economic policy, in which case its distributional effects will also almost invariably enter as an argument—and all our cases become in principle relevant. What in practice is not usually very helpful in either of the above cases is to suggest that what is really being aimed at may be some more radical redistribution of wealth, in which case any decision on the mooted change should be deferred. The truth is that economic change proceeds largely by considering suggested improvements one at a time. If, as a result, some changes are made which, in the light of subsequent decisions, should not have been made, that is too bad. But it cannot always be helped.

Let us now try to sum up this discussion so far as we have got. First, neither the Kaldor-Hicks nor the Scitovsky criterion, either alone or together, can possibly be taken to be a criterion of welfare. Either, taken in conjunction with a judgement that the redistribution involved is good, can be taken as a sufficient (but not necessary) criterion of an increase in economic welfare. But, where full compensation and redistribution are possible, then criteria for an increase in welfare are not pertinent, for what is then required is a criterion for whether the proposed change is desirable having regard to the possibilities of compensation and redistribution. Where redistribution and compensation are possible, but where wider redistributions than those involved in the change are not in question, then the Scitovsky criterion is sufficient (but not necessary) for the change to be desirable if the redistribution involved is also good—

while the Kaldor-Hicks criterion is not sufficient even combined with a judgement that the redistribution is good. We can thus say that an economic change is desirable (and increases welfare) if it causes a good redistribution of wealth, and if the potential losers could not profitably bribe the potential gainers to oppose it—always assuming that no still better change is therefore prejudiced.

FIG. VIII¹

The next step is to discuss the question of when one can know whether either the Scitovsky or the Kaldor-Hicks criterion is satisfied. Now economic theory tells us nothing except when the change is from a 'sub-optimum' to an 'optimum' position.² Only in that case can one know on *a priori* grounds that the behaviour line or plane to which one moves is anywhere higher than that from which one starts. Let us therefore ask, first, whether the Kaldor-Hicks criterion is always satisfied for any movement to a Pareto 'optimum'. This requires rather a careful answer. Consider Fig. VIII. Q_1 is the initial position where A behaves as a monopolist setting a high price (OP_1), but with an obligation to let B trade freely at that price (as in Fig. VI). Q_1 is not on the contract curve, i.e. is not a Pareto 'optimum' position. Q_2 is on the contract curve, we may suppose it to be reached by the government dictating the price

¹ The broken lines give the loci of the points which A and B would select as the price line OP_2 was shifted to the right.

² Some theorists have thought otherwise. The question is discussed in Ch. IX and in App. IV.

OP_2 , so that it is in both A 's and B 's interest to trade freely. Now can B overcompensate A while free trade and the price OP_2 is preserved? The answer may well be 'No', for as the price line OP_2 is shifted to the north-east (as B hands over compensation), no other point may be found where both persons' desire to trade can be satisfied. In other words, no equilibrium point other than Q_2 may exist within the box given the price OP_2 . In the diagram the two broken lines represent paths A and B might take as OP_2 was shifted parallelwise to the north-east. In the case depicted there would be excess demand for Y relative to X . If B were forced to exchange as much as A wanted after having paid compensation, then the transfer required to compensate A could well leave B worse off—e.g. the point Q_3 . Thus the payment of compensation may either be incompatible with equilibrium, or, if an additional condition is introduced, which yields a determinate solution, then there may be no possibility of compensation. In general, it is true that the Kaldor-Hicks criterion is satisfied for a movement to an 'optimum' position only if it is supposed that the compensation is to be paid in a manner which does not itself upset the 'optimum' conditions. Thus, if the Kaldor-Hicks criterion is to be satisfied, the change must not be merely a change of price—but a change to a variable price which neither party can influence monopolistically. A more general example of this is where the movement to an 'optimum' position results in a change in the collection of goods produced. Where this happens then it is not necessarily true that the new collection of goods could be distributed in such a way as to make everyone better off, or no worse off. This is because, as compensation is paid, the said collection of goods ceases to be the collection appropriate to the changed distribution or, in other words, the 'optimum' conditions of production and exchange would be violated unless the collection of goods was allowed to change as compensation was paid. What can be said is that if the change is described merely as a change which brings all the optimum conditions into play, and keeps them in play, then the Kaldor-Hicks criterion is satisfied. If the change is described in any other way (such as a change of price, or a change in the collection of goods produced) then the criterion may not be satisfied.

Discussion of whether the Scitovsky criterion is satisfied is much simpler. It is always satisfied for a change to an 'optimum' position, however the change is described. This is because no question of

redistribution from the 'optimum' position arises. In the Scitovsky criterion, the hypothetical redistribution considered is from the 'sub-optimum' position. Thus in Fig. VIII it is obvious that A , the potential loser from the change of price OP_1 to OP_2 , could not bribe B to oppose the change, because, since Q_2 is an 'optimum' point, any other point on the behaviour line of B which passes through Q_2 necessarily lies on a lower behaviour line of A than that passing through Q_2 . Thus if it is a change of price which results in an 'optimum' position, then the Scitovsky criterion is satisfied for that change of price. If a change in the collection of goods is entailed, then it is true that the old collection would not be sufficient to make everyone as well off as he is in the new situation.

We have said that *a priori* economic theory can tell us that the Scitovsky and Kaldor-Hicks criteria are satisfied only if the change is a change to a position in which *all* the optimum conditions of production and exchange are satisfied. But, of course, that does not mean that one can never form the judgement that a change to a non-optimal position would not in fact satisfy one or both the criteria.

We show in Chapter XII that an increase in the national income as measured by the prices reigning after the change ($\sum P_2 Q_2 \geq \sum P_2 Q_1$) ensures that the Scitovsky criterion is satisfied,¹ in that the output of goods prior to the change could not have sufficed, however distributed, to make everyone as well off as they actually are after the change. Now one may sometimes be able to tell, with fair confidence, before the event, that a certain change in production would increase the national income in this sense. Unfortunately, unless one can tell more than this, one has not found a very good reason for making the change. For what is required in order that the Scitovsky criterion be fulfilled *in the relevant sense* is that without the change the given factors of production could not have produced *any* set of goods which would have made everyone as well off as after the change. This does not mean that a considerable increase in the national income cannot be taken as evidence that the change should be made on our criterion, but it cannot prove it to be fulfilled.

It is shown in the same chapter that an increase in the national

¹ Subject, of course, to many comparatively unrealistic assumptions, such as that all individuals are consistent, all goods are chosen by individuals, that the national income has been correctly added up, &c.

income never proves that the Kaldor-Hicks criterion is satisfied.¹ This does not mean of course that one could never guess that it would be satisfied. But it does not follow that because a change would increase the national income before compensation, it would still do so after compensation. This is especially likely to be the case in view of the fact that in practice it is impossible to shift money about without disturbing the 'optimum' conditions. This fact, contrariwise, makes it easier to be sure that the Scitovsky criterion is satisfied—since the more 'inefficient' the means of redistribution the easier it is to know that mere redistribution could not have produced a position in which everyone would be as well off as they would be if the change under consideration were made.

To sum up the above discussion, any change which brings one to an 'optimum' position is sufficient to ensure that the Scitovsky criterion is fulfilled for that change, and the fulfilment of that criterion is sufficient to ensure that welfare is increased, provided that the distribution of wealth is not adversely affected, and to ensure that a redistribution of money income could not have made everyone as well off as they would have been after the change. Comparing non-optimum positions (which in practice is all that ever can be done), we saw that economic theory cannot tell us whether either the Scitovsky or the Kaldor-Hicks criterion would be fulfilled for a move from one to the other, but from empirical evidence it may be possible to tell, although an increase in the national income is not sufficient evidence.

So far as any kind of change is concerned, if the Scitovsky criterion would be satisfied and wealth would be more favourably distributed as a result of the change, there is no need to worry about the Kaldor-Hicks criterion. But, secondly, if redistribution without the change were impossible, and that caused by the change were favourable, then the change should be made if the Kaldor-Hicks criterion were satisfied, even if the Scitovsky criterion were not. Thirdly, if wealth would be less favourably distributed as a result of the change, one should look to see whether the change-plus-compensation could not make everyone better off. Finally all this is subject to the overriding consideration, that it is unwise to make good changes if still better ones are thereby prejudiced.

We have already discussed the value judgements which underlie the above analysis. On the whole, I think, one can fairly safely

¹ See pp. 220-1

assume that they would be acceptable to a vast majority of people. But certain factual assumptions are also presupposed, and, in discussing these, for more practical purposes, it is useful to make a distinction between a *policy* of putting into operation all changes which satisfy the Scitovsky (or Kaldor-Hicks) criterion and which have only an insignificant effect on distribution, and putting into effect changes which also pass the criterion, but do have a significant, but not bad, effect on distribution. The policy might be an acceptable one, and, indeed, a possible one, because there are probably many changes such that very few people would worry about the income redistribution which they would cause. Where the redistribution would only be small, it would be difficult to say how it would alter, and for this reason a majority of people would very likely be prepared to judge that it would be as likely to be good as bad, in which case a change which passed the criterion would probably be good in most people's opinion. But, nevertheless, the policy rests on the factual assumption that these small shifts in distribution would not be cumulative in some particular direction. This may be a dangerous assumption, and therefore the policy might be a bad one, if we did not have good reason to suppose that the distribution effects of those changes, which we chose to include under the policy, would be random. In fact, one cannot really ever ignore distribution. Even if shifts in distribution are small, and therefore judged not to be bad, one wants to have some reason to suppose that they would be random. If the distribution effects were not random, then, after the policy had been in operation some time, we would have a significant redistribution of income which might be good or bad. If it proved to be bad, it might or might not be possible to compensate. If the redistribution were good, we might still find that the policy had been economically wrong, and that it would have been better simply to redistribute money.

The goodness of such a policy also, of course, rests on the assumption that individuals are sufficiently consistent. As we saw in Chapter III, it is obvious that they are not likely to be very consistent. Moreover, since it is a policy we are judging, the period of time in question is a fairly long period, in which case the consistency of even average individuals becomes very doubtful.

Given all these doubts, it seems eminently clear that we could not have much confidence in such a policy unless it only included

changes such that, in theory, the gainers would be able greatly to overcompensate the losers. If the potential gains were great enough, most people would be prepared to tolerate losses, so long as they did not last for long. Almost anyone would, for instance, agree that it would be a mistake to suppress important inventions. On the other hand, where the potential gains are large, it is unlikely that real income distribution would not be significantly affected. Thus many people would hold that the industrial revolution decreased economic welfare for a considerable period of time. My conclusion is that one could have little confidence in the sort of policy suggested by Professor Hicks.¹

Turning now to changes which do affect income distribution significantly, we have the same fundamental value judgements, and we still, of course, require the assumption that individuals are consistent. We do not, however, require the assumption that income redistribution effects would be random. Also, since we are now dealing with isolated changes, and not with a policy, a rather shorter period of time may be relevant, in which case the consistency assumption is not so unpalatable. Nevertheless, given that I accepted the fundamental value judgements, and thought that the change would shift real income distribution in a good direction, I would certainly require that the potential gains should be fairly large before I could say with any confidence that the change would be better than a policy of income redistribution alone.

On the other hand, as already noted, in practice a policy of redistributing income by shifting money is impossible without violating the 'optimum' conditions. This means that often one might want to recommend changes which would cause a good redistribution, even although the Scitovsky criterion was not satisfied. In which case, *a fortiori*, one would want to recommend them if it were. What this all adds up to is that the question whether income redistribution would be definitely good, or could be made good by compensation, is a more important part of the criterion than the Scitovsky part, unless it is obvious that the magnitude of the theoretical gains (the amount by which the gainers could conceivably overcompensate the losers if everyone was an economic

¹ A. M. Henderson has suggested ('The Pricing of Public Utility Undertakings', *Manchester School*, Sept. 1947, p. 230) that the randomness of distribution effects is an assumption which has been presupposed in economic doctrine ever since Adam Smith. This seems to me to be an inadequate reason for continuing to make such a dangerous assumption.

man) is great. This is most likely to arise where the change is one which might have a cumulative effect, as opposed to a once-and-for-all effect, on the output of goods. I certainly do not want to suggest that it is necessarily wrong to accept bad redistributions, or not press for good ones, in the name of economic growth.

In the latter part of this chapter we have rather loosely spoken of 'recommending', and used the word 'should', and so on. These phrases are justified in so far as we have introduced ethical premises, but it is important to remember that we have ruled out all ethical considerations which do not relate to the amount of goods and services consumed by individuals. Thus our recommendatory conclusions must not be regarded as absolute recommendations, or unqualified value judgements, we also require that all non-economic effects of the change should be neutral, or beneficial; or, if bad, they must be outweighed by the good economic effects.

Finally, we must make one very important point. When discussing a good economic policy, we tried to aim at general acceptability, but that does not, of course, imply that what is generally acceptable is good. We only aim at general acceptability in order that the analysis should be of interest to as many people as possible. We are not thereby absolved from making our value premises explicit if we want to avoid the charge of moralizing. Since value judgements are presupposed, it follows that, in the last analysis, whether a policy would be a good one, or a change increase economic welfare, is purely a matter of personal opinion. This is particularly obvious in the case of changes which affect income distribution significantly. Each person must answer for himself the question 'Would this change affect real income distribution favourably or unfavourably?' This does not mean that welfare economics must be useless. It only means that people who differ on the subject of distribution will seldom agree on the desirability of economic changes. This is simply a fact which we have to accept. Even so, welfare economics may still help people who disagree on the subject of distribution to agree on the best way of bringing about any given redistribution.

It may be useful to conclude this chapter by briefly tracing the relation which the above exposition of the foundations of welfare economics bears to utilitarian welfare economics. The first important point is that it makes the ethical implications of the subject perfectly explicit. Secondly, it does not beg the question in favour

of any particular ethical creed. It provides therefore a more general framework than utilitarian economics, which can be fitted into it by suitable translations. Thus a utilitarian may, if he wishes, always interpret 'on a higher behaviour line' as 'more satisfaction'. Likewise, he may interpret 'a good redistribution of income' as 'a redistribution which would increase happiness'. But if one does not believe that the view, that economics is about satisfactions, is sufficiently plausible, one can merely judge that it is a good thing that a person be in a preferred position. Also, since the above schema is explicitly ethical, it follows that the notorious question of whether interpersonal comparisons are value judgements ceases to be of any importance. In order to reach our ethical conclusions, we have to judge that a certain redistribution would be *good*, and not merely that it would increase happiness. But interpersonal comparisons are not, in fact, merely value judgements, and people will generally use these factual comparisons to help them decide the value question whether a certain redistribution would be good or bad.

Since we believe that the essential purpose of the economics of wealth, happiness, or welfare is to make recommendations, and to influence people, it follows that it should be put on an explicit, and not merely an implicit, value basis. We therefore prefer the above schema to that of utilitarian economics. But, having said this, we must add that the utilitarian scheme of things was more logical, more acceptable, and less misleading than that version of the New Welfare Economics which was based merely on conceivable over-compensation.

CHAPTER VII

THE NEW WELFARE ECONOMICS (2): THE ECONOMIC WELFARE FUNCTION

THERE remains for consideration the system of welfare economics favoured by the first school of thought mentioned in the previous chapter. This system was first worked out by Professor A. Bergson in his article 'A Reformulation of Certain Aspects of Welfare Economics'.¹ On this formulation the 'optimum' conditions of production and exchange are derived as *necessary* conditions for 'maximum welfare'. In the last chapter we developed a *sufficient* criterion for a desirable economic change, and no such concept as 'maximum welfare' was used. It follows that if the 'optimum' conditions are deduced from this later kind of basis, they must be deduced as *sufficient* conditions for an economic improvement, and not as *necessary* conditions for achieving 'the maximum'. This is one of the distinctive differences of emphasis between the two systems.

The Bergson-Samuelson system proceeds by way of a 'social welfare function'.² In other words it is postulated that all possible configurations of the social system are arranged in order of value. This means that, if the system is ever to be applied, we require someone—let us, for the moment, call him 'superman'—to answer the question 'Is *X* better or worse than *Y*?' for all conceivable values of *X* and *Y*. The value judgements of this 'superman' must be consistent in the same sense as an 'economic man' must be consistent, i.e. if he says *A* is better than *B*, and *B* better than *C*, he must say that *A* is better than *C*.

But no conclusions about the real world can be reached if one tries to talk about everything at once. So let us replace the 'social welfare function' by an 'economic welfare function'.³ This means that it is proposed to take into account only the economic differences between each pair of possible situations. The word 'economic' is defined as in Chapter I. The order in which the situations are arranged on the economic welfare scale may, of course, differ from the order in which they are arranged on the social welfare scale. We cannot therefore say that a situation of greater economic

¹ *QJE* (1937-8), pp. 310-34.

² Cf. Samuelson, *op. cit.*, pp. 219-28.

³ Cf. Bergson, *op. cit.*

welfare is a better situation in the eyes of 'superman'. But, for the sake of brevity, we shall use such words as 'good', 'bad', and 'ought'. The resultant value judgements must therefore always be regarded as qualified by the condition that the non-economic differences between the two situations must be a matter of ethical indifference, or they must support the value judgements made as a result of a consideration only of the economic differences. The phrase 'in the opinion of "superman"' ought also to qualify the value judgements.

To make any progress some assumptions must be made about the form of the 'economic welfare function'. In other words, we require some value postulates. Let us, then, postulate that 'welfare' is an increasing function of the 'well-being' of 'individuals', i.e. whether we move up or down the scale of 'economic welfare' depends on whether 'individuals' become 'better off' or 'worse off' (if this is not postulated, there is no problem of how 'goods' ought to be allocated to 'individuals', and therefore the 'optimum' exchange conditions could not be derived). We also postulate that 'economic welfare' is greater if one 'individual' is 'better off', and no 'individual' is 'worse off'. Then, in order to relate 'better off' and 'worse off' to economic theory, it must be stipulated that an 'individual' is 'better off' if he is 'on a higher behaviour line', and similarly for 'worse off'.¹

It follows that 'economic welfare' is greater if some 'individual' is 'on a higher behaviour line', and if no other 'individual' is affected at all. This suffices for the deduction of the 'optimum' conditions of production and exchange as *necessary* conditions for attaining the highest possible value of the economic welfare function.² It can be shown that if any one of these conditions is not fulfilled, then it is conceivable that some 'individual' should be made 'better off', without any other 'individual' being made 'worse off'. But the fulfilment of all these 'optimum' conditions of production and exchange is still not sufficient to ensure that the highest conceivable value is attained. They suffice only for the attainment of a Pareto optimum.³ The final condition for achieving

¹ This last postulate will be slightly modified later.

² In Appendix III we throw some doubt on whether these conditions should be regarded as necessary for a Pareto optimum. If these doubts are accepted, then it follows that they are not necessary for the optimum. But, in conjunction with an ideal distribution of welfare, they would remain *sufficient* for the optimum.

³ See p. 84 above.

the 'optimum' (among all the Pareto 'optima') is that there should be an ideal distribution of 'welfare' among the 'individuals'. It thus has to be imagined that 'superman', besides laying down the value postulates already shown to be required, also defines an ideal distribution of 'welfare'.

As has been said, the exponents of the above approach to 'welfare' economics have neglected to define sufficient conditions for an improvement in 'welfare'.¹ But one sufficient condition is, of course, implied, i.e. that all the 'optimum' conditions, including the ideal distribution of welfare condition, be put into operation at once. Thus the neglect of sufficient conditions for an increase in 'welfare' tends to turn the system into the theory of socialist economics.² This assimilation of welfare economics to socialism is evidently suggested by the lack of any discussion of when it might be a good thing to put one 'optimum' condition into operation, even if some of the others were not fulfilled, thereby suggesting that it is a case of all or nothing. To a certain extent this emphasis on the 'optimum' conditions as each being necessary for *the* 'optimum', but not sufficient for an 'improvement', is undoubtedly an accident of the mathematical analysis employed. But, whether accident or not, the implication of all or nothing is there, unless the author takes care to let it be understood that he does not intend to imply anything at all.

Nevertheless the conclusions which were reached in Chapter VI could have been derived from an economic welfare function defined by means of the value postulates proposed above. If one has the same premises one can, naturally, reach the same conclusions. The difference between the two approaches is as follows. To speak of an economic welfare function implies that every situation can be said to be 'better than', 'worse than', or 'in different to' every other situation,³ this implies that there is a best or a number of 'equally best' situations; which, in turn, implies an ideal distribution of welfare. On the other hand, the situational analysis, developed in Chapter VI, presupposes only that a limited number of points

¹ It is not quite true that sufficient conditions for an improvement were altogether neglected. Professor Bergson (*QJE* article, p. 333) in effect concludes that increases in the 'national dividend' would increase economic welfare if they were positively correlated with good changes in welfare distribution.

² It is noteworthy that the article on welfare economics by Professor Bergson, in *A Survey of Contemporary Economics*, is entitled 'Socialist Economics'.

³ Cf. Samuelson, *op. cit.*, p. 221.

(four) are, necessarily, thus orderable.¹ The situational analysis is derivable from an economic welfare function, and, since the reverse does not hold, the economic welfare function can be said to be more general. But the advantages of increased generality are very dubious—except from the mathematician's point of view—if the economic welfare function cannot be applied. It seems to me that the functional terminology is advantageous only if one can significantly speak of maximizing economic welfare, using the term in its ordinary sense. Therefore since the maximization of welfare implies the possibility of an ideal distribution, let us pretend that we are starting off with an ideal distribution, as defined by 'superman' whoever 'he' may be. It follows that one cannot deduce that any change should be made unless, after compensation, it makes someone better off, and no one worse off.

But we have already seen that, if the actual compensation of all losers is required before any economic change can be said to be good, then probably no good economic changes can occur. No change of any significance in the real world could ever be made without harming some people. Also compensation can never be more than rough and ready, partly because the behaviour maps of individuals (even supposing them perfectly consistent) are not known, and partly because the effects of any important economic change may be extremely widespread, and the number of individuals involved very great.

It will be remembered that the payment of compensation was also criticized on the ground that it betrayed a conservative bias. But the present case is very different, for an ideal distribution has been presupposed. If we start with an ideal, conservatism is, by definition, the best policy. But what does this concept of an ideal distribution really mean? We have seen that the ideal distribution was to be defined by 'superman'. But nobody could say what distribution of real income, or welfare, would be ideal. We have no terminology for describing welfare distributions. The definition, therefore, must be ostensive. We have to suppose that 'superman' would point to a certain configuration of the economic system, and say '*that* represents the ideal welfare distribution'.

It is time that something was said about the interpretation of

¹ It may be suggested that we have a partial economic welfare function even if only two situations are assumed to be orderable. If one is determined to use mathematical language, at whatever cost in clarity, this can, of course, be said

this word 'superman'. Could 'superman' be interpreted, for instance, as public opinion? It is difficult to imagine how public opinion could define an ideal distribution. Take a more or less democratic country such as England. Some might consider the distribution of welfare in England now to be ideal, but many more would not. Howsoever it was altered, there would still be many who would not find it ideal. Indeed, it seems doubtful whether it would ever be possible to get two people, let alone a majority, to vote 'Yes' in answer to the question 'Is the present distribution of welfare ideal?', no matter how welfare was distributed. Thus, in a democratic state, it seems absurd to suppose that public opinion could define an ideal distribution.

Could 'superman' be interpreted as Parliament or the Cabinet? This idea leads to the suggestion that economists, in a state with a democratic government, must always take the prevailing distribution as ideal, because the government would have changed the distribution if it had wanted to. This suggestion rests on two fallacies. It is certainly a fallacy to suppose that the government must approve of the prevailing distribution, merely because it has the power to alter it. This is like saying that one must always want to be in the place where one is, even if one happens to be motoring through it. But the present suggestion also rests on the highly undemocratic idea that the government always knows what is best—or that it alone can say what is in the public interest. Those economists who are not civil servants are permitted to criticize the aims, policies, and opinions of the government.

It thus appears that the 'ideal welfare distribution' could at best be defined only in a totalitarian state, where economists, or other subjects, never question the value judgements of their rulers. But even in such a state it might not be safe to assume that the distribution of welfare was always just what the rulers wanted. In the real world, the redistribution of welfare is a slow and difficult business. And, even if economists in such a state could assume that distribution was ideal, there would still be great difficulty in making changes which did not upset that distribution. The difficulties involved in the idea of trying actually to compensate all losers would not be removed. The distribution of welfare would inevitably shift, in which case it would still be necessary to inquire whether the resultant redistribution was good or bad. We can only conclude that the 'economic welfare function' would be inapplicable even

in an absolutist state, and doubly so in a democratic one, where there would be as many (vague) welfare functions as there are individuals. It can be regarded only as a formal device necessary to a perfectly general abstract system of 'welfare', which bears no relation to practical policy.

Now the third school of thought—the Kaldor–Hicks–Scitovsky school—concentrated not on developing the necessary conditions for Utopia, but on providing a sufficient criterion for an economic improvement. It is clear that this kind of approach is suggestive of reform rather than revolution, of patching up rather than tearing down and building anew. But the criteria developed were not acceptable because they ignored income distribution. It was also not clear that the ethical, recommendatory, nature of welfare economics was recognized. We therefore introduced value judgements into the analysis. The two fundamental value judgements were (a) that welfare is an increasing function of the well-being of individuals, and (b) that an individual is better off if in a chosen position. These two value judgements are identical with those which must be used by the exponents of the 'economic welfare function', if all the traditional 'optimum' conditions are to be deduced.

But there the resemblance ends. The Kaldor–Hicks school of thought made welfare independent of distribution. We refused to accept this latter stipulation, and introduced a new sufficient criterion for a desirable economic change. The use of the phrase 'increase of economic welfare' is made dependent on the judgement that the resultant redistribution would not be bad. This means that, in our system, unqualified conclusions can never be reached, if it is desired to remain neutral on matters of welfare distribution. But, by leaving open the question of whether any shift in distribution would be good or bad, we avoid having to make the useless presupposition of an 'ideal welfare distribution'. The application of the theory therefore becomes more general.¹ Anyone can decide for himself whether the projected redistribution would be good or bad, and therefore whether (in theory) the change ought to be made or not. One of the least tolerable features of the ideal distribution concept is that it limits the use of the theory to those who happen to believe that the distribution of welfare is ideal.

¹ In welfare function terminology people who would define widely different functions may agree on the desirability, or otherwise, of a given change. People need not agree about everything to agree about one thing.

The other important difference is that the 'optimum' conditions need not be derived as necessary conditions for 'maximum welfare'. 'The maximum' is a concept without any possible empirical significance, and therefore it seems preferable not to use it. It is more meaningful to derive the 'optimum' conditions as sufficient conditions for an improvement, without attempting to define a maximum position. The 'economic welfare function' is the basis of a perfectly valid system. It has been criticized, not on logical grounds, but on the ground that it cannot be applied. We prefer the less highly formalized, less comprehensively rationalistic, situational kind of analysis. Of course, we may be forced to decide that even this kind of analysis is hopelessly inapplicable. But at least it seems to offer more hope of application.

Let us review the progress made so far in this book. We have developed a formal sufficient criterion for deciding when a change is economically desirable. It is desirable if (a) it results in a good redistribution of welfare, and if (b) the potential losers could not bribe the potential gainers to vote against the change. This criterion may be expressed, in other words, as follows: *A change is economically desirable if it results in a good redistribution of welfare, and if a policy of redistributing money by lump-sum transfers could not make everyone as well off as they would be if the change were made.* It is important to remember that this is a sufficient criterion only: it is not suggested that changes which do not satisfy it may not also be desirable. Secondly, it is conceivable that some changes which satisfied it might prejudice still better changes: so the qualification 'so long as it is judged that still better changes are not thereby prejudiced' should be made. One thing that the criterion does, is, as it were, not to give the green light to all changes which increase welfare: a change which would increase economic welfare, but can be shown to prejudice a still better position attainable merely by redistribution, is not given the green light. So one important kind of alternative policy, i.e. redistribution is partly taken account of—but the criterion cannot ensure that yet other kinds of policy, which would result in still better positions, might not be prejudiced by a change which it permits.

With this qualification the criterion is an adequate basis for welfare economics, because, as we shall see in the following chapter, it permits the deduction of the traditional 'optimum' conditions, as sufficient conditions for a desirable change, given that the

fulfilment of the condition would not have an unfavourable effect on distribution. Whether a certain economic change would be good, or not, thus depends on a value judgement about income distribution. It is a matter of opinion whether any given shift in distribution would be good or bad, and therefore always a matter of opinion as to whether some economic change is desirable or not. This does not in the least imply that welfare economics must be useless. It may enable people who largely agree on matters of distribution to agree on the desirability of certain specific changes. And even if an economist thinks that some suggested change would affect distribution unfavourably he can still make some recommendation. He can, for instance, say that if the government is determined to shift distribution in that way, then it would be better to do it by making the suggested change rather than by some other means. But this does not, of course, imply that he would be prepared to say that the change would increase welfare.

The above analysis presupposes only two value judgements, both of which we believe to be widely acceptable. The first is that the welfare of the community is an increasing function of the welfare of individuals. The second is that an individual is better off if he is in a chosen position. We found that value premises are essential to welfare economics because welfare conclusions *are* value judgements, and because value conclusions require value premises. Our criterion for a desirable economic change thus resulted from the introduction of a value judgement about welfare distribution into the Kaldor-Hicks-Scitovsky 'situational', or 'partial', analysis.

We believe that anyone who accepts the two fundamental value judgements, and our definition of the word 'economic', must accept the above criterion. This completes our discussion of the foundations of welfare economics. These foundations are, in our opinion, sound. If welfare economics is found to be useless, it is not because there is anything shifty about the philosophical or logical foundations. We claim to have stated the required postulates in a clear, precise manner. It only remains to accept or reject them. It will be presumed, in what follows, that they are accepted.

The criticisms of welfare economics which will occupy us in subsequent chapters will be neither logical, nor linguistic, nor philosophical. We shall be concerned with the realism of the theory, i.e. with the question of how far the defining characteristics

of our concepts are realized in practice. We have already, to a limited extent, been concerned with this question of realism. It has been seen that the exact application of the 'in a chosen position' criterion to the real world, in a form which is theoretically useful, demands that individuals should be perfectly consistent 'economic men'. But any exact application was obviously out of the question. We therefore asked ourselves whether the behaviour-line analysis of individual economic behaviour was *sufficiently* realistic for us to have a reasonable degree of confidence in the deductions made from such a basis.¹

A tentative answer to the above question was given in Chapter III. It was decided that the behaviour-line analysis applied very badly to actual individuals. On the other hand we believe that most people would still be prepared to accept the two fundamental value judgements, even given that the word 'individual' is not to be taken absolutely strictly. It was concluded that if 'individual' is interpreted in a vague way as referring to average men, or small homogeneous groups, then it would be very rash to conclude that the facts of inconsistent behaviour, taken alone, render all prescriptive economics useless.

The above discussion of the reality of one of our essential factual assumptions has been rather tentative. We have spoken vaguely of an analysis applying 'well' or 'badly', and talked of 'a reasonable degree of confidence'. Why do we have to make such vague judgements? Why cannot the question, whether the theory applies well enough, be definitely answered? What are the usual scientific tests for when an assumption, or a hypothesis, is good enough?

In science the above sort of question is answered pragmatically. Assumptions are good enough if they yield conclusions which can be tested, and are found to be true—or, if not precisely true, are better than nothing, and better than results yielded by any other hypothesis. Evidently, in order to answer such a question as 'Does the behaviour-line analysis apply well enough?' the conclusions which result from its application to the real world should be tested. But the conclusions are welfare conclusions. Are such conclusions testable? In principle, 'Yes'. Having selected an individual who

¹ The applicability of the behaviour-line analysis does not depend only on the degree of consistency displayed by individuals. It also depends on how far economic goods are divisible. The problems arising from the unreality of the assumption of perfect divisibility will be discussed later, in Chapter X.

approved of our value judgements, we could then make changes which satisfied the criterion of desirability, and ask him whether the resultant situation was better or worse than the initial one. But from this description of how the conclusions could be tested in principle it becomes fairly obvious that they could not be tested in practice. The reasons are (a) that no controlled experiment is possible. Even if our guinea-pig said that an improvement had resulted, we should be unable to rule out the possibility that the improvement was the result, not of the changes deliberately made, but of concomitant changes—and (b) the canvas is too large for any individual to be able to observe it all, and so make a reasonable judgement.

Physicists do not have to worry about whether the concepts of the deductive systems, which they use, have any recognizable interpretation. In physics, it does not, for instance, matter in the least whether or not electrons are identifiable objects which behave in the postulated manner. What are important are the conclusions in terms of physical objects, which can be verified or falsified. But social scientists, in lieu of readily testable conclusions, must concern themselves with the extent to which the defining characteristics of their concepts realize themselves.¹

Thus the question of whether the assumptions of welfare economics are good enough (when they are obviously not very good) is a matter of individual judgement—and never a matter of proof. Since, in subsequent chapters, we shall be questioning many of the factual assumptions, implied by any application of welfare economics to practical policy, this fact should be borne in mind. So far we have been concerned only with one assumption, that of con-

¹ The fact that our theoretical conclusions cannot be tested, and that we therefore have to fall back on testing our postulates, marks an important difference between welfare economics (and, I think, all the social sciences) and the physical sciences. This has been well put by F. S. C. Northrop in his article 'The Impossibility of a Theoretical Science of Economic Dynamics', *Q. J. E.* lvi, 1941-2, as follows: 'the difference in scientific method is marked. Physics tests its deductive theory indirectly by empirically checking its theorems, Economics, directly by empirically confirming its postulates. In Physics one believes in the validity of its postulates because their deductive consequences, the theorems, are experimentally confirmed, in Economics, one believes in the validity of its theorems because they are the logical consequences of the immediately confirmed postulates.' As comment we may add that this passage seems to apply perfectly to welfare economics, but not to positive macro-economics. We must also add that our postulates are not, in fact, confirmed—at best they are confirmed to have a grain of truth—and so we may, or may not, believe in the truth of the theorems.

sistency of choice Whereas my judgement is that we cannot simply dismiss welfare economics on the ground that this is an absurd assumption, nevertheless I think that its obvious unreality is alone sufficient to make it foolish to be concerned with minutiae. Before applying our formal criterion we should at least require that the losers would appear to be, in theory, incapable of bribing the winners to oppose the change by a fairly handsome margin

The fact that it is a matter of judgement whether the abstract welfare theory applies well enough to the real world to justify its application to live issues, implies, I think, that welfare economists cannot, even if they wish to, avoid all responsibility for deciding questions of value Since welfare judgements about the real world are value judgements, it follows that the question whether the abstract theory applies well enough for us to risk such conclusions is a value question. When an economist says 'If you accept such and such premises, then these conclusions follow' he must remember that the given premises will be understood to run in terms of real individuals, &c. But the economist himself works in terms of rather unreal abstractions, he must accordingly remember that his practical conclusions are suspect The non-economist should be warned of the assumptions which the economist slips in in order to be able to deduce his practical conclusions from the given premises In practice, to warn the non-economist of all the assumptions made, would be to teach him a lot of economic theory. Thus economists themselves have largely to decide whether the theory is good enough They cannot free themselves from all responsibility The distinction sometimes drawn between economist *qua* economist, and economist *qua* moralist, is an unreal one.

In the next chapter the 'optimum' conditions of production and exchange will be developed, both as necessary conditions for a maximum, and as sufficient conditions for a desirable economic change From what has been said above, however, it is clear that the latter sense of the word 'optimum' is the only one which is regarded as being of any possible practical significance ¹ We shall also show under what conditions these 'optimum' conditions would, in theory, be fulfilled. We shall endeavour to present the theory as applied theory. Even so we shall only take the unreality

¹ It is also shown in Appendix III that considerably weaker assumptions about individual behaviour are required if we are content to derive the 'optimum' conditions solely as sufficient conditions for an improvement

of a limited number of assumptions into account—to wit (*a*) the assumption that individuals are independent and free to choose between different collections of goods, and that they make consistent choices, and (*b*) the assumption that production units are independent. We shall, in fact, try to show with what degree of plausibility it can be said that these ‘optimum’ conditions are based on individual preferences. In later chapters the applicability of welfare theory will be discussed from a wider viewpoint.

CHAPTER VIII

THE 'OPTIMUM' CONDITIONS OF PRODUCTION AND EXCHANGE (I)

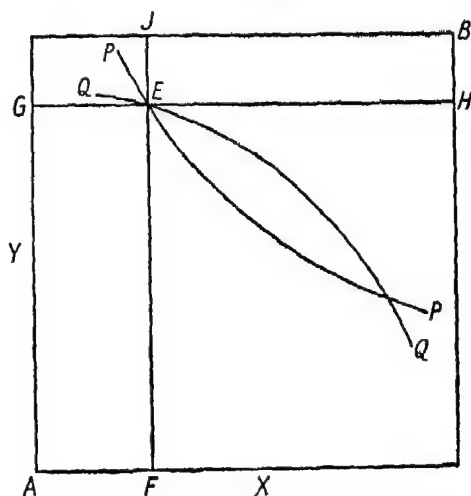
I. THE 'OPTIMUM' CONDITIONS OF EXCHANGE

We postulate a fixed stock of 'goods' to be distributed between a number of 'individuals'.

1 (a) *The marginal rate of substitution between any two 'goods' must be the same for every 'individual' who consumes them both.*

For two 'goods' and two 'individuals' this can be proved with the aid of a box-diagram of behaviour lines. Thus, in Fig. IX, *A's*

FIG IX



behaviour lines are convex to the origin *A*, and *B's* to the origin *B*. Adjacent sides of the box represent the total amounts of the two goods *X* and *Y* to be divided between *A* and *B*, and thus every point represents a certain division of the goods between them. At the point *E*, for instance, *A* gets *AF* and *AG* of *X* and *Y* respectively, and, similarly, *B* gets *BJ* and *BH*. The point *E* is one at which the slopes of *A's* and *B's* respective behaviour lines (*PP* and *QQ*) are different. Whenever this is the case, it can be seen by

inspection that it must be possible for one to reach a higher curve, while the other remains on the same curve, or also reaches a higher one. It follows that equality of the marginal rate of substitution is a necessary condition of 'maximum welfare'.¹ This two-person, two-good case can be generalized to apply to n persons, and n goods. The proof of this, and of all similar generalizations of the other 'optimum' conditions, is left to the mathematical economists.²

Putting the above condition into operation, when it is not already fulfilled, is, in theory, a sufficient condition for an increase in welfare, so long as the distribution of welfare is not thereby made worse. This follows because any movement to a position of tangency of behaviour lines is a movement which satisfies the Scitovsky criterion. Once such a position is reached, as a result of some change, it is impossible that the Kaldor-Hicks criterion should be satisfied for the reverse change away from the tangency position. This is the same as to say that the Scitovsky criterion must be satisfied for any change to a point of tangency of behaviour lines.

In what circumstances is this 'optimum' condition fulfilled? In Chapter II we saw that a behaviour line must be tangential to any fixed price line at the chosen point. This condition is therefore satisfied if individuals are free to choose, and if there is only one price in the market, because, then, all behaviour lines must be tangential to the same price line, and therefore have the same slope. The fixed price must, of course, be such that all the goods are sold. This requirement is not necessary when it is assumed, as in Fig IX, that all the goods have already been distributed before exchange takes place.

Earlier we promised to modify the postulate 'an "individual" is "better off" if he is "on a higher behaviour line"'. The modified postulate is as follows: 'an "individual" is "better off" if he is "on a higher behaviour line" and if his well-being is not unfavourably

¹ Sometimes the only positions in the box which satisfy the condition that it must not be possible for one to reach a higher line without the other falling to a lower one will be on the boundaries of the box. In such a case it cannot be said that equality of the marginal rates of substitution is necessary for an 'optimum'. The same also applies if behaviour lines are permitted to be kinked. The modifications which need to be made to the 'optimum' conditions in these cases are dealt with in Appendix III.

² Reference may be made to Bergson, *op cit*, Lange, 'Foundations of Welfare Economics', *Econometrica*, July-Oct 1942, Samuelson, *op cit*, pp 229-40.

affected by changes in the well-being of other "individuals". The object of this modification is to remove the assumption that individuals' welfares are completely independent. Professor Bergson has shown that the 'optimum' conditions do not require this assumption of independence. To quote:

In so far as Marshall and Pigou conceive of welfare as the sum of the utilities of different households, their formulation involves an additional decision on ends, namely one to the effect that the interrelations in the utilities of the different households have a zero social value. The magnitude of the change in the community's welfare, resulting from a change in the budget position of any one family, does not depend at all on the living standards enjoyed by other households.

For purposes of analyzing the optimum allocation, however, it is unnecessary to refer to this special and obviously very dubious case, it has been shown that all propositions of interest can be deduced from the more general function in the formula given above.¹ The demonstration of this point would seem to be one of the more interesting doctrinal gains resulting from the introduction of the welfare function² into the analysis.³

It must be noticed that Professor Bergson does not merely claim to dispense with the independence assumption in arriving at the barren truism that the ratio of the marginal social values ought to be the same for any two goods whichever individual consumes them, but also in arriving at the condition that the marginal rate of substitution ought to be the same. How is this possible, in view of the fact that, if the independence assumption is not made, one cannot say that economic welfare is increased if some 'individuals' are 'on higher behaviour lines', and none are on lower ones? The answer is that if, say, *A* and *B* (as in Fig IX) could be raised to 'higher behaviour lines', then, even if their increased welfare has such external diseconomies of consumption⁴ that the

¹ The 'formula given above' is the economic welfare function, $W = F(U_1, U_2, U_3)$, where U_1, U_2, U_3 represent the utilities of the different households as they see them, and W , the welfare of the community, is understood to be an increasing function of these utilities.

² Yet the hedonistic calculus formulation can very easily be modified to take account of economies and diseconomies of consumption, as Professor Bergson himself, in effect, showed (cf his *QJE* article, p 313, n 9). The 'doctrinal gain' may have resulted from the introduction of the welfare function, but it is not inconsistent with utilitarian economics.

³ A. Bergson, 'Socialist Economics' in *A Survey of Contemporary Economics*, ed. Ellis. See also Bergson, loc cit, *QJE* (1937-8), p 313, n 9.

⁴ See Ch III.

general welfare would be reduced, it would still be possible to increase general welfare, in that one could reduce A and B to their former welfare level by removing purchasing power, and then distribute the potential benefit to those individuals whose external diseconomies of consumption, if any, do not completely offset that benefit. Thus, unless all individual increases in welfare have more than offsetting external effects, which would obviously prohibit any increase in general welfare, this 'optimum' condition of exchange is deducible without the use of a postulate which implies independence. In fact, given an 'economic welfare function', we do not require to translate 'benefit' as 'on a higher behaviour line' in order to use the behaviour-line analysis in the deduction of the 'optimum' conditions as necessary conditions of 'maximum welfare'. We may notice that Professor Bergson's criticism of Marshall and Professor Pigou applies better to the subsequently developed Kaldor-Hicks analysis, in which independence is required, because no economic welfare function is introduced, and income distribution is ignored.

From the above it follows that there is only a potential increase in welfare if we put A 'on a higher behaviour line' and no other 'individual' on a lower one. To make the potential 'increase' actual, it is necessary to ensure that the potential 'gain' is distributed to the right 'individuals'. But, although one can thus deduce this 'optimum' exchange condition as a necessary condition of 'maximum welfare', how can one ever know that putting it into operation would be a sufficient condition for an increase in welfare? Now the magnitude of external consumption effects varies with the distribution of welfare. Therefore they will be taken into account in deciding whether the fulfilment of the condition would cause a not unfavourable redistribution. The condition that the distribution of welfare must not be adversely affected *includes* the condition that the potential 'gains' resulting from putting this 'optimum' exchange condition into operation must be distributed to the right 'individuals'. This can be seen as follows. The redistribution which the change would cause, even allowing for the external consumption effects, would not, in itself, decrease welfare. Therefore a change which would result in this redistribution, and be such that, from the point of view of the new redistribution of welfare, those who had gained could overcompensate those who had lost, must increase welfare.

We have, however, dealt only with one kind of interdependence, the kind which makes a man worse off because his neighbours get better off, without altering his consumption pattern. But a change in the welfare of others may also alter a man's consumption pattern, and this difficulty cannot be removed in the formal analysis. Also, there is yet another kind of external consumption-effect which attaches to the consumption of a particular good, whoever consumes it, and not to the welfare level of particular consumers. Thus the consumption of Rolls Royces, whoever owns them, may give considerable displeasure to some people who do not own them, and considerable pleasure to others. Again, a beautiful house may have important external economies of consumption. This kind of interdependence does not upset the 'optimum' conditions of exchange, but it may, as we shall see, upset some of the 'optimum' conditions of production. That this is so is intuitively clear. Even if Rolls Royces are displeasing (or pleasing) to those who do not own them, it still follows that those who want them most should own them. But if they cause displeasure, or pleasure, to others their production should be curbed or encouraged as the case may be.

But, finally, the external effects may depend upon who consumes the goods. Radios cause displeasure to others in the hands of owners who live in crowded places and play them loudly but not in other hands. The presence of such external effects upsets the 'optimum' conditions of exchange, and it ceases to follow that a fixed stock of goods is 'ideally' distributed if sold at a single price which equates supply and demand. moreover, no conceivable system of indirect taxes or subsidies would meet the case, in fact, some restriction of individuals' freedom of choice is usually the only possible manner in which such anti-social behaviour can be restrained.

If we include 'leisure' as a 'good' in the behaviour-line analysis, we can express another 'optimum' condition of exchange

- I (b) *There must be equality of the marginal rate of substitution between 'leisure' and any given consumption 'good' for all 'individuals' who 'work' and consume that 'good'*

As before, if this condition does not hold for every pair of 'individuals', it would be possible for one of them to reach 'a higher behaviour line' without the other falling to 'a lower behaviour line'.

But, as we saw in Chapter III, there is a great difficulty about fitting leisure into a behaviour-line analysis, because it is not, in general, the case that the amount of work which a man does is his free choice. It may be true that, if a man has to work eight hours or not at all, he may take his leisure in the form of slackness, and thus try to adjust his subjective marginal rate of substitution of leisure for the good in question to their relative prices, as determined by the price of the good and his marginal earnings. Where a man is paid by time, and where he cannot, for reasons of production technique, be allowed to vary his working time as he chooses, this 'optimum' condition could only be brought about in this way. It cannot reasonably be claimed that the consistency which a man shows in his working time is a sign that he has constant preferences. It is rather a sign of lack of choice at the margin.

There is also the difficulty that there are many different kinds of work of varying degrees of unpleasantness. A man cannot normally split his work up between many different jobs, in the way that a consumer can split up his consumption. The rate at which he would be willing to exchange leisure for the given good would, of course, depend on the relative pleasantness of the job he was doing. We really need a different leisure corresponding to every different kind of work. Taking into consideration the different kinds of work means that we require another 'optimum' condition, to wit:

- 1 (c) *The marginal rate of substitution of one kind of 'work' for another must be equal for all 'individuals' who do both kinds of 'work'*

The unreality of this condition is manifest. It is, however, true, in a sense, that both working time and relative wage-rates are partly determined by individual preferences. But the preferences are usually collective rather than individual. To put it in another way, the trade union seems to be the relevant 'individual' in the case of choices about work, while actual or typical individual workers, or their families, are more relevant to the consumption of ordinary goods. Yet, in condition 1 (b), the same interpretation of 'individual' is required, whether he is consuming or working. The marginal rate of substitution referred to cannot therefore be precisely determined by observing the free choices of any real individuals.

Thus the value postulate 'an individual benefits if he reaches a higher behaviour line' leaves us rather in the dark. Ought hours of work to be removed from collective bargaining, and become again the object of more individual choice? Ought the decline in production, which would probably occur as a result of the increased difficulty of factory organization, to be tolerated? The theory cannot give us much help here, unless we make a number of *ad hoc* value judgements to cover the points raised. Moreover, these difficulties are far from being trivial. It is not very consistent to lay great emphasis on individual choice in the consumption-good market, and very little emphasis on individual choice in the labour market. But that is what economic theory seems to have done.¹ Yet most individuals spend far more time working and being leisurely than they do consuming objects which can be 'brought into line with the measuring rod of money'.

But, in order to be able to progress with our analysis, we must assume these difficulties solved, for the remaining 'optimum' conditions depend on the fulfilment of those already discussed. We can suppose that certain *ad hoc* value judgements are given. It may, for instance, be laid down that a man's welfare is greatest if he works a forty-hour week. The relative diswelfare of different jobs may be considered to be in line with relative wages determined in some given way. We come now to the 'optimum' conditions of production.

II THE 'OPTIMUM' CONDITIONS OF PRODUCTION

We must now give up the postulation of a fixed stock of goods. But all the following 'optimum' conditions depend on the behaviour-line analysis of 'individual' behaviour, if it is assumed that welfare is a function of the well-being of individuals. This assumption, which is, of course, implicit or explicit in almost the whole of the theory of economic welfare, will be made throughout. Consumption, although there is no longer a fixed stock of goods, can now be thought of as split up into periods, in which a fixed stock of goods, which was produced in the preceding period, is allocated to individuals. For the present we ignore savings and investment, and we assume constant technique, and constant managerial

¹ Cf E. H. Phelps-Brown, 'Prospects of Labour', *Economica*, Feb. 1949, p. 7.

and workmen's ability and zeal. The first 'optimum' condition of production is, then, as follows:

- II (a) *The ratio of the marginal products of any two 'factors of production' must be the same for every 'good' in the production of which they both co-operate.*

In other words, the rate at which one 'factor' can be substituted for another, without altering the amount of 'goods' produced, must be the same in all lines of production. The validity of this condition can be shown by reference to Fig. IX. The lines PP and QQ must be reinterpreted as iso-product curves. A and B are now 'goods', not 'individuals'. X and Y are 'factors', not 'goods'. Thus, the point E now represents a situation in which AF of factor X , and AG of factor Y , are devoted to the production of A . Similarly, BH of Y , and BJ of X , are devoted to the production of B . The slope of an iso-product curve at any point represents, for a given distribution of the factors, the rate at which X can be substituted for Y in the production of A (or B) without altering the amount of A (or B) produced. Iso-product curves are, like behaviour lines, assumed to be convex to their respective origins, which implies that the rate at which one factor can be substituted for the other decreases as the substitution goes on (i.e. more and more Y (X) is required to compensate for the loss of a given amount of X (Y) as the amount of X (Y) used is reduced). If an iso-product curve failed to be convex over part of its length, then, if the price ratio of the factors remained constant, no combination of factors represented by any point on the concave part of the curve would ever be chosen, since a higher output could, in that case, be obtained at the same cost. If the iso-product curves were nowhere convex to the origin, only one of the two factors would be employed, and the 'optimum' conditions for their best usage would, then, be irrelevant. The condition of equal marginal substitutability is therefore an 'optimum' and not a 'pessimum' condition of production. As before, it can be seen, by inspection of Fig. IX, that, if we are not at a point of tangency of iso-product curves, then the production of A , or B , or both, could be increased without increasing the total amount of any factor used.

Now, if the production of one good can be increased, without that of any other declining, then it must (by the definition of a behaviour line) be possible to raise some 'individual' or 'individuals'

to higher behaviour lines, without affecting any other unfavourably, so long as we choose the right 'individuals' and the right 'goods'.¹ Therefore this is a necessary condition of 'maximum welfare'.

We must remember, however, that we have extended the behaviour-line analysis to include 'leisures'. Therefore 'factors' cannot be interpreted as human factors of production. Formally, we require the value premise that economic welfare is not affected by shifting 'factors' between jobs. This premise cannot apply to human factors if we include, as we do, work or leisure in the behaviour-line analysis.

Now the above analysis requires that 'production units' be independent, i.e. there must be no external economies or diseconomies of production. We saw that if the iso-product lines in the diagram were not tangential, then more of both 'goods' *A* and *B* could be produced without withdrawing 'factors' from other uses. It was for this reason that it was said that the production of *A* and *B* could be increased without any decrease in the production of any other good. But this does not necessarily follow, if we do not assume independence, because, analogous to external diseconomies of consumption, there might be external diseconomies of production. Thus an increase in the production of *A* and *B* might cause a decrease in the production of *C*, even though *C* still retained the same 'factors' of production. If *everything* which a 'firm' actually produced could be accounted to it as part of its 'product' (positive or negative), and if *everything* it consumed could be accounted to it as a 'factor', then every 'firm' must, by definition, be independent. But, in the real world, such perfect accounting is not possible, and therefore we have to reckon with external economies and diseconomies in applying our analysis. If, given a uniform system of accounting, we knew which firms had external economies and diseconomies, we could ensure that production would be increased by making marginal factor substitutabilities equal, for, if they were unequal for two firms which had external diseconomies of production, then, at the same time as we made them equal, we could withdraw factors of production, so that only the products of other firms with no external diseconomies of either production or

¹ We must choose the right 'individuals' and 'goods', because, as we have seen (p. 132), both individuals and goods may give rise to external diseconomies of consumption.

consumption would actually be increased. But how are we to estimate these external effects? Given a 'superman' who could fill these otherwise empty boxes,¹ and set values on the external economies and diseconomies, then, and only then, could we say that putting the above 'optimum' condition into operation, even given that the distribution of real income is not unfavourably affected, would increase economic welfare. Without such a series of *ad hoc* valuations, we can only know that, if the above condition is not satisfied, then it must be possible to increase economic welfare, but we cannot be sure that putting the condition into operation will not actually make matters worse. In other words, such external economies and diseconomies of production and consumption are irrelevant to the deduction of this condition as a *necessary* condition of 'maximum welfare'. But necessary conditions are not very interesting. It is *sufficient* conditions for improvements that we really want, and those external economies and diseconomies, which may attach either to the production or the consumption of a particular good, prevent us deducing the present condition as sufficient for an increase in economic welfare. They must therefore be assumed to be absent.

There is another kind of external economy and diseconomy which we must notice. It is possible that the production of some 'good' could be increased without there being less of any other 'good', and still it might not be possible to increase general welfare, if the firm whose production was increased also produced 'nuisances' which were not counted in the analysis. Formally, one can get round this difficulty by postulating that the concept 'good' covers everything produced. But, again, in practice, we cannot rely on ideal accounting, and anyway 'nuisances' are not normally objects of individual consumption, for, if they were, they would be charged to the firm, therefore they cannot be very well fitted into the behaviour-line analysis. The traditional examples of these 'nuisances' are smoke, noise, and smells. Uncharged-for benefits may also occur, but are not so obvious. One might suggest those entertaining advertisements which at least do something to offset the ugly ones. It is clear that these effects help to destroy the precision of our analysis. Ideally we require that they should all be valued, and charged to the firms.

Ignoring the external effects mentioned above, we may ask in

¹ Cf J. H. Clapham, 'On Empty Economic Boxes', *EJ* (1922)

what circumstances the present 'optimum' condition would be fulfilled. If a producer can exchange one inanimate factor for another at a fixed price, which he cannot influence, then, if he is to produce any given output at the minimum possible cost, he must make the marginal substitutabilities of the factors equal to their relative prices. Therefore, if each producer has to pay the same relative prices for factors, then the 'optimum' condition is fulfilled. This marginal analysis can only be applied to divisible factors of production, and obviously can never be precisely fulfilled in a world in which demand, technique, and factor prices may be all changing. One can say, however, that, in order to give producers the best chance of getting as near to this static ideal as ignorance of the future permits (or makes desirable), one ought to see that every producer is faced with the same relative factor prices.

To include animate factors in this condition would be to demand that, for instance, a man and a machine should be paid the same relative wages on a farm, and in a coal-mine. Since we have excluded this, a valuation must be put on the relative diswelfare of work under various conditions. We have already seen that this valuation cannot be very plausibly extracted from a behaviour-line analysis of free choices on the part of actual individuals. Nevertheless, our 'superman' may want us to take 'individual preferences' into account in some sense. How could we best interpret this requirement?

We might take relative wages, as determined by collective bargaining. But 'superman' might want us to try to get nearer to real individuals' preferences than that. One possibility would be to set relative wages at the point at which there is no tendency for either line of production to grow at the expense of the other. But should we take the short or the long run? There are large costs involved in labour movement in the short run which are avoided in the long run through expansion by juvenile intake, and contraction by retirement, the long run avoids the actual movement of individuals. It would appear, then, that we should take the short run if we want to get as close to actual individuals' preferences as possible. But, then, these would only be the preferences of the marginal men, and would take into account movement costs, which should presumably be excluded when we are simply considering the relative disutilities of the two jobs. There is no reason to suppose that they are representative of the relative preferences

of intra-marginal men. In fact, these, if human nature does not change very much, are much more likely to be represented by the wage-rate which would result in an absence of long-run labour movements.

The alternative is, of course, that 'superman' would cut through these difficulties by setting his own valuation on the relative real costs of different occupations. In any case, we must suppose that this question is settled in the best way. Then the relative prices between men and other factors are determined for each industry, and each producer ought to bring, as before, these relative prices into line with his iso-product curves.

It may be noticed that the present 'optimum' condition is the only one of the 'optimum' conditions in which the word 'optimum' need not refer to welfare. If this condition is not fulfilled for all factors of production, including workers, then *production* could, in theory, be increased. The production of the whole economy consists of a heterogeneous collection of things and services. One such heterogeneous collection can be strictly said to be greater than another only if there is more of at least one kind of thing, and no less of any kind. Thus, we can say that production could be increased, without any increase in resources, or in the number of hours worked, if the 'optimum' condition is not fulfilled for all factors of production (we ignore the production of nuisances). We should, however, avoid saying that production is inefficient if the above condition is not fulfilled, even for non-human factors. To say 'production is inefficient' strongly implies that it would be a good thing if production were made efficient. This is not necessarily the case. To make this condition operative would not necessarily be an improvement, because a higher level of production (even with no change in the amount or kind of work done by any worker) may entail less welfare. To sum up, as with the 'optimum' exchange conditions, the present condition is a necessary condition of 'maximum welfare', but it is only a sufficient condition for an improvement if (a) the 'optimum' exchange conditions 1 (a), 1 (b), 1 (c), are not disturbed, (b) if the distribution of real income condition is not adversely affected, (c) if there are no external diseconomies of production, and (d) if there are no external diseconomies of consumption (of the kind which attaches to the consumption of a particular product). We come now to the second of the 'optimum' production conditions,

- II (b) *The marginal rate at which one 'good' can be transformed into another must be equal to the 'individuals' common marginal rate of substitution of one for the other*

This condition can, again, be illustrated by reference to Fig. IX if we reinterpret it. The line QQ must now be thought of as the locus of all those collections of the two 'goods' X and Y which, with a given set of 'factors', could just be produced if the 'factors' were always combined in the production of both X and Y according to the 'optimum' condition II (a) above. This line is usually known as a transformation curve. Its concavity towards the origin A implies a diminishing rate of transformation of one 'good' into the other. The line PP now stands for one of the behaviour lines of any one of the 'individuals' who consumes both X and Y (If the 'optimum' exchange conditions are satisfied, then the slope of the behaviour line at the point E must, since E is supposed to be a point of equilibrium, be the same for all 'individuals'.) It can now be seen by inspection that, if the slope of the transformation curve is not equal to the slope of the behaviour line, then the relative production of X and Y could be altered in such a way as to enable A , and all other 'individuals', to reach higher behaviour lines.¹

The above 'optimum' condition is not valid as a sufficient condition for an increase in welfare unless all the exchange conditions, and the production condition II (a), are also satisfied (or unless some other value judgements have been introduced to take the place of 'individual preferences' as a value criterion). These other 'optimum' conditions are necessary conditions of the 'optimum' on their own account, but require that distribution is not thereby made worse if it is to be sufficient for an increase in economic welfare to put them into operation. The present 'optimum' condition requires, however, that all the preceding 'optimum' conditions should already be satisfied if it is to be necessarily a good thing to put it into operation.² It is therefore more shaky than any of the others. The difficulties engendered by external economies and diseconomies are also present, but in a more acute form. The previous

¹ The modifications required if individuals' equilibrium positions are boundary ones, or if behaviour lines are kinked at the equilibrium point, are explained in Appendix III.

² But it requires more than this: it cannot really be considered as a separable sufficient condition from the next condition to be discussed, II (c). Neither of the two taken alone can be regarded as a sufficient condition even if all the remainder are satisfied. This is shown to be the case on page 163.

'optimum' condition of production was a necessary condition for an 'optimum', even if external diseconomies were present. These external effects only came in when we were considering whether it would be a good thing to put the condition into operation. In the present case, however, the presence of external production and consumption effects, or nuisances, means that this condition would not even be a necessary condition for an 'optimum' at all. It would, then, at best be an approximation to such a condition.

The problem of the valuation of labour also becomes more serious. Let us suppose that the fulfilment of this 'optimum' requires firm *A* to expand at the expense of firm *B*, which expansion necessitates the movement of labour, if the optimum condition $\Pi(a)$ is to remain undisturbed. Suppose that the value judgement is given that wages should be determined in accordance with workers' preferences, and that our best interpretation of this rather vague judgement is that relative wages ought to be such as to result in a long-run equilibrium in the supply of labour to different firms. It follows that labour would not be induced to move in the short run. The fulfilment of the present 'optimum' would, then, be impossible in the short run. But, if the wage-rate was allowed to rise in the short run, that would mean revising our previous decision. If wages are such as to induce the marginal worker to move in the short run, then they are not in accordance with the average worker's preferences. (We may add that, if wages are allowed to rise in the short run, then 'price everywhere in the same proportion to marginal cost' does not fulfil the present 'optimum' condition—see below.) Perhaps the best way of preserving this 'optimum', and keeping in line with individual preferences would be to pay the marginal workers a lump sum in order to induce them to shift, not charging this to the expanding firm, and keeping wages in line with the long-run equilibrium relative wage (if that could be discovered). But the truth of the matter is that the instruction, to take individual preferences into account, cannot be at all precisely interpreted in the matter of the supply of labour.

Assuming that all previous 'optimum' conditions are satisfied, we may now ask in what circumstances the present 'optimum' would be fulfilled. The usual answer is that it is satisfied if marginal costs are everywhere proportional to prices. This follows only if the ratio of marginal costs is equal to the rate of transformation. Rents which might accrue to the factors as a result of the trans-

formation should be excluded. Suppose that wages rise in the expanding industry as the transformation is made. If relative wages were in line with individual preferences before, they can no longer reflect individual preferences for the intra-marginal men, who must now earn rents. Since we have decided that it is relative individual preferences which are relevant to transformation rates, these rents should be excluded. If wages rise in the expanding industry, and marginal costs include only wages, then marginal cost will equal marginal wage-cost, and not the cost of the marginal men. In these circumstances equiproportionality of marginal cost and price is not a correct deduction from the above 'optimum' condition. The Lerner 'Rule' may be substituted,¹ i.e. the price of each factor ought to be everywhere in the same proportion (or equal) to the value of its marginal product. Even this will only be correct for labour (in the short run) if it has been decided that the relative wage-rate which will just induce the marginal men to move is what we mean by 'the rate which reflects individual preferences'. We have seen that this is not an altogether plausible interpretation.

We come now to the last 'optimum' production condition, which may be expressed as follows:

- II (c) *The rate at which 'work' can be transformed into any given 'good' must equal the marginal 'individual' rate of substitution of 'leisure' for consumption of that 'good'*

Granted that there are 'individuals' who have this common rate of substitution between some given 'leisure' (corresponding to a given kind of 'work') and the consumption of some given good, then this 'optimum' may also be illustrated by means of Fig. IX, if we again reinterpret it. The line *PP* now maps *A*'s behaviour with respect to some given 'leisure' *X*, and some given 'good' *Y*. *QQ* represents the different additional quantities of *Y* (measured from *A*) which could be produced with varying amounts of 'work' on the part of *A*, combined with given quantities of all the other 'factors'. Thus, at the point *E*, *A* has *AF* hours of leisure and consumes *AG* of *Y*. *AG* is also the additional amount of *Y* produced as a result of *A*'s working for *EH* hours. The concavity, towards the origin *A*, of the work-good transformation line *QQ* implies that *A*'s work is subject to the law of diminishing marginal productivity. It can be seen, by inspection, that if these two rates are not equal,

¹ Cf. A. P. Lerner, *Economics of Control*, p. 64.

then A or some other individual could reach a higher behaviour line, without anyone else suffering, if the amount of work he did was altered. If, for instance, he worked less, consuming only enough of Y to keep him on the same behaviour line PP , then an increased amount of Y would be available for consumption by other individuals.

The validity of the above condition depends upon the fulfilment of all the 'optimum' conditions of exchange, including the two rather shaky ones associated with the supply of labour. In what circumstances will it be fulfilled? It has to be assumed that the individual makes the rate at which he is willing to substitute leisure for the given good equal to the rate at which it is possible for him to make the substitution, i.e. to the net marginal earnings per unit of time derived from his work, expressed in terms of the given good. Therefore it follows from the 'optimum' condition that the rate at which his work can be transformed into the given good (his marginal physical productivity) should be made equal to his net marginal earnings in terms of that good. In terms of money, his net earnings ought to be equal to the value of his marginal product. From condition II (b) it followed that the price of the factor ought to be everywhere in the same proportion to the value of the marginal product. We now see that *if there is no marginal taxation levied on the individual's earnings*, then it follows that, in the case of labour, this proportion ought to be equality.

But it can be shown that if the business man minimizes costs, then marginal cost is equal to the price of each factor divided by its marginal physical productivity.¹ Condition II (a) is satisfied by the policy of cost minimization provided that the factors of production are in perfectly elastic supply. It therefore follows, in conditions in which marginal costs ought to be made equiproportionate to price, that this equiproportionality should be unity. In other words, marginal cost should be brought into equality with price. This condition depends upon there being no marginal taxation, so that one can also conclude that no one who works, and can vary the amount of work he does, ought to pay income tax, or any indirect tax (indirect taxation is also, of course, 'ruled out' by the previous 'optimum' condition).

We have already seen that the validity of the 'optimum' condition, from which these conclusions are deduced, depends on the

¹ See P. A. Samuelson, *Foundations of Economic Analysis*, p. 66.

'optimum' conditions of exchange being satisfied. But they also require the satisfaction of the 'optimum' condition of production II (b) (from which we deduce, if the supply of factors is perfectly elastic, that prices should stand everywhere in the same proportion to marginal costs) The 'optimum' condition II (b) itself requires the fulfilment of the optimum production condition II (a) We may conclude that if it is to be proved to be a good thing to make price equal to marginal cost, given the value judgements on which this analysis rests, we require:

1. that *all* the other 'optimum' conditions of production and exchange be satisfied;
2. that factors are in perfectly elastic supply,
3. that there is no income tax, and no indirect taxes or subsidies;
4. that it could be put into effect without adversely affecting the distribution of real income;
5. that there are no external diseconomies of production or consumption.

These are rather formidable requirements

III THE 'OPTIMUM' CONDITIONS OF SAVING AND INVESTMENT

Up to this point we have ignored savings and investment We will now deal with the 'optimum' conditions which may be developed in respect of them They all follow from the same value premises as those which we have already introduced We shall first deal with the two 'optimum' savings conditions, which are analogous to the 'optimum' exchange conditions. They are, in fact, exchange conditions, but the 'goods' to be exchanged are peculiar The first savings 'optimum' condition is as follows

- III (a) *There ought to be the same marginal rate of substitution between money and any given bond or share for every individual who 'consumes' both.*

This is obviously the same as the first exchange condition, except that we here include money and bonds as 'goods'. It is, in theory, satisfied if the prices of shares, bonds, &c, are the same for all individuals

It is, however, more unlikely that an individual will have a consistent consumption pattern with respect to bonds than with respect to consumption goods, because the expected price of bonds

is liable to govern his behaviour to a considerable extent. The fulfilment of this condition is therefore more shaky, as a sufficient condition for an increase in economic welfare, than is the corresponding exchange condition.

The second savings 'optimum' condition may be stated thus.

- III (b) *There ought to be the same marginal rate of substitution between money and any given good for all individuals who 'consume' both*

Whether a man holds money or spends it, is also governed, to a considerable extent, by expected price movements. Exactly the same remarks therefore apply to this condition as applied to III (a) above.

- IV. *The rate at which any given present good can be transformed into the same good, at some given future date, ought to be equal to the common marginal rate at which individuals are willing to substitute one for the other.*

In order to arrive at this 'optimum' investment condition, we have to make some assumptions about psychology. The purely behaviouristic analysis so far adopted fails us. We have to assume that, when individuals save, they are, in effect, exchanging present money for future money.¹ It then follows, by definition, that the common marginal rate at which they forgo present in favour of future purchasing power (money in favour of bonds, &c.) is equal to their present *time preference*.² If we assume that there is no taxation on savings (i.e. no income tax), then this is also, by the definition of behaviour lines, necessarily equal to the rate of interest. Next we must assume that all individuals have the same expectations as to the future price movements of every good which they expect to buy. Then, if we know this expected price change of any given good, we know every individual's time preference with

¹ But it must also be assumed (unrealistically) that would-be dissavers can freely exchange future money for present money by borrowing.

² I here use 'time preference' to express the rate at which an individual is willing to exchange money now for money at some given future date. This is not the usual sense, which is the rate at which an individual would be willing to exchange money now for money at some given future date *if he expected that the marginal utility of money would be the same for him at both dates*. No doubt time preference in this latter sense may play some part in determining the rate of interest—but it does not seem possible to discover very easily what anyone's time preference is in this sense. It is, perhaps, not a very useful concept, and I have therefore borrowed the expression to describe something different.

respect to that good (i.e. that particular expected commodity-rate of interest) for every future period. We know, for instance, that every individual would be willing to exchange one watch now for two next year, eight the next, or whatever it is.

Given similar assumptions to those made under II (b) and II (c) above, it follows that the discounted expected value of the marginal product of an investment good ought to equal the present price of that good, on the further assumption that producers have the same price expectations as consumers. Similarly, it follows that investment for the future production of a good ought to be carried to the point at which the discounted expected marginal cost is equal to the discounted expected price. It is obvious, however, that this is even more shaky than the condition that output ought to be adjusted until present marginal cost is equal to the present price. It assumes everything the latter assumes, and much more besides. If individuals are mistaken about future prices, which they will be if they do not correctly foresee distributional and technological changes, then the condition is upset. It can, of course, be argued that ignorance of the future is inevitable, and will constitute a difficulty whatever investment principles one adopts. But, on the other hand, it may be argued that individuals are not the best judges of what the future will hold.

There are further difficulties. The present 'optimum' is derived by including money and bonds in the behaviour-line analysis, which makes that analysis even more dubious than otherwise. We also had to assume that individuals save in order to spend in the future. But, to a certain extent, it is true that savings have an intangible yield in the shape of imagined security. It is also not the case that people save mainly to spend themselves. They save (or used to save) largely for their legatees, whose preferences may be quite different to their own. We also have to assume that all individuals expect the same price changes, which is very unrealistic. When risk enters in, we have to assume that investors and speculators are the best judges of the riskiness of different shares. This assumption may also be considered dubious. Moreover, the interpretation of 'individual preferences' itself becomes rather difficult when we consider that almost all private saving is now done by corporations. Perhaps this should be prohibited? Finally, these difficulties are in addition to the formidable ones which arise in connexion with the 'optimum' production conditions.

Given the 'optimum' savings and investment conditions, it follows that, when there is full employment, we should not interfere with the supply of money in such a way as to influence the rate of interest. Full employment of all inanimate factors¹ is, of course, prescribed by the value premises which we have introduced. It has, however, been thought by some writers that determination of the rate of interest by individual preferences may be inconsistent with the maintenance of full employment. It has been said that the decision as to what the rate of interest ought to be is 'unavoidably political'² (which, on our formulation, means that another value judgement must be introduced). Recently, however, it has been shown that full employment is not theoretically inconsistent with the determination of the rate of interest by individual preferences.³ Once given full employment, it may be preserved by ensuring that planned savings are equal to the supply of loans. This could be done (in an ideal system) by ensuring that the rate of interest rises or falls far enough to cause a variation in investment sufficient to offset any change in planned savings.

A decline in spending may, for instance, be taken as a sign that time preference has shifted in favour of the future. If there is no effect on the rate of interest, because of an increase of hoarding, this does not mean that it can no longer be maintained that every individual makes his time preference equal to the rate of interest. It is, in fact, this adjustment which causes the decline in present spending. It does mean, however, that we can no longer say that time preference is, by the defined method of constructing behaviour maps, *necessarily* equal to the rate of interest. We must here introduce a psychological explanation of behaviour if we wish to say that the decline in spending is caused by an increased preference for future goods, and to say that the supply of loans ought to be kept equal to planned savings. This is because we are here dealing with a shift in behaviour lines, and, as we maintained in Chapter II, it is only when we have to consider shifts in behaviour patterns that psychological explanations enter into economics.

Suppose, however, that we are not at a position of full employment. Would it interfere with individual time preferences if, say, the government borrowed from the banks and spent the money on

¹ The employment of human factors is determined by condition 1 (b)

² Cf. A. Lerner, *Economics of Control*, p. 262

³ F. J. Atkinson, 'Saving and Investment in a Socialist State', *R.E.S.* (1947-8).

providing free consumption goods? Would this be 'forced' consumption? Alternatively, if the government spent the money on public works, would this be 'forced' saving? The answer is clearly 'No'. It cannot be said that such action would be interfering with individual preferences as to how the production of the economy should be divided between investment goods and consumption goods, because, at best, it is only true that the interaction of individual preferences can determine such an 'ideal' division for a given level of production. Thus 'forced' saving or consumption can only occur when there is inflation. If people continue to try to spend more than the value, in a preceding period, of the national output of consumption goods, then the only thing which prevents a runaway inflation is 'forced' or unintended saving on the part of individuals. Suppose, then, that the government decides to increase investment when there is already full employment. This must be financed by unintended savings, or preferably by non-marginal taxation (preferably because unintended saving implies a haphazard redistribution of real income which may very well be disapproved of). Should we now say that individual preferences as to the correct amount of investment have been interfered with? The answer is, in theory, 'Yes'. The 'optimum' conditions of production, and investment, together, in theory, determine the 'optimum' amount of every good to be produced, both now and at every future date. Thus, to stimulate the production of future goods (given full employment) by lowering the rate of interest, or in any other way, is, in theory, to interfere with the 'optimum' conditions in just the same way as subsidizing the production of a present good out of taxation (even non-marginal taxation) is interfering with the 'optimum' conditions. We must remember, however, that the concept of an 'optimum' rate of interest depends on the validity of the optimum savings and investment conditions above, and we have seen reason to believe that they can only be deduced from the value premises we have postulated by making a number of most unrealistic assumptions.

To conclude this chapter, it may be worth noticing that some of these 'optimum' conditions can be deduced from quite different value premises to those which we have postulated. The ones which we postulated were used for various reasons: (a) because they alone suffice to deduce all the 'optimum' conditions developed above, and (b) because all the above conditions are more or less tradi-

tional in economic theory, and therefore we can say that the value postulates we have made are implicit in much economic theory, and finally (c) because we think that they would be generally acceptable in any liberal society. This is not, of course, to say that the system which has been somewhat precariously based on them would be acceptable. That is very much more doubtful.

Let us, then, briefly consider some other set of value premises, as follows

The relative value of different products is to be determined by some schedule drawn up by the government. Welfare is maximized when the value of the national output, thus determined, is greatest.

What 'optimum' conditions can we now develop? It is clear that all the exchange conditions vanish, as well as the 'ideal' income distribution condition, unless we find that income distribution and exchange conditions affect the value of the national output by causing people to vary the intensity of their work. If such variations could not be overcome by force, it would be a matter of empirical investigation to find out which method of allocation and distribution was best, from the point of view of maximizing the value of the output, according to the fixed value coefficients. If organization was not valued as an end in itself, i.e. was not accounted part of the product, the price mechanism might be left in being as requiring least organization. The 'optimum' production condition II (a) would remain, and be applied to all factors. This would require the direction of labour. Men would be required to work until their marginal productivity fell to zero. Whether this would be short- or long-run marginal productivity would depend on the relative scheduled values of products over time. Real wages would depend on the relative valuation given to the various wage-goods, which would, presumably, be such that workers did not starve, but which would otherwise depend on governmental decision. The 'optimum' production condition II (b) would remain, with the difference that the marginal rate of transformation must now equal the relative scheduled values, but it would still be subject to the difficulty of external economies and diseconomies of production. The savings conditions would likewise vanish. The investment condition IV would remain, but with the difference that the government's relative scheduled values for future products over present products

would determine each commodity-rate of interest, and replace the precarious combination of expected price movement plus rate of interest, which determined the expected commodity-rate of interest in the first system discussed

The 'optimum' conditions which remain, II (a), II (b) modified, and IV modified, rest, however, on a very much more secure basis than do the corresponding conditions in the previous system; because we no longer rely on a behaviour-line analysis, with all the doubt about whether it applies to real individuals, because we no longer have to wonder how the word 'individual' can be interpreted in some of the conditions; because we have postulated that the distribution of real income is irrelevant.

Welfare economics may thus be fairly simple in a collectivist state. Its conclusions could be applied with some degree of confidence. But, of course, many people will want to say that it is quite ridiculous to maintain that the brief sketch made above has anything to do with welfare economics. I would agree. But, in saying that, I doubt we would be saying anything more than that we do not find its value premises acceptable. To call such a sketch a sketch of welfare economics might not be a misnomer. But it would definitely be persuasive naming.

CHAPTER IX

THE 'OPTIMUM' CONDITIONS OF PRODUCTION AND EXCHANGE (2)

IN the last chapter it was shown that the 'optimum' conditions rest with varying degrees of plausibility on 'individual preferences'. We also showed, for each 'optimum' condition, what prior conditions require to be satisfied if it is to be a good thing to put it into operation. The circumstances under which each 'optimum' condition would be fulfilled in the real world were also stated. Whether or not it would be a good thing to reproduce these circumstances is a question the answer to which depends partly on the plausibility of the theoretical deductions, but also on wider considerations which must now be discussed.

Let us begin with the 'optimum' condition of exchange I (*a*), from which it was deduced that all individuals should be faced with the same set of prices, and be free to choose. It is clear that this precludes rationing, which is the most important way in which this condition is upset in the modern world. Rationing is introduced when the price of certain necessities and semi-necessities would otherwise rise so much that there would be a considerable redistribution of real income. Thus it is tempting to say that rationing is only necessary because the distribution of real income is not 'ideal'. This is, however, only true if the 'ideal' distribution of income is held to be represented by an equal distribution of money—and probably no one in the world who is in a position of responsibility holds that. But if some other distribution of money is 'ideal', then a rise in the price of necessities (necessities are, roughly speaking, all goods regularly consumed by the poorest section of the community) must always result in a shift of real income away from those with lower money-incomes. Now rationing would fall under case 6 of Table II, and therefore it would be correct, according to the theory, not to introduce it, but rather to redistribute income by taxation. This would, however, upset another 'optimum' condition. Therefore what is required is to redistribute income by non-marginal taxation. Quite apart from the fact that such taxation would upset people's ideas of equity very

much more than rationing, this is not a practical suggestion. Redistribution by capital taxation is a slow and cumbersome process. In the meantime, the rise in the cost of living for the working classes might provoke a wage inflation, which would itself cause a shift in the distribution of real income which might well be regarded as undesirable. Here, the chief reason why welfare theory fails us is that it is static, and pays no attention to the time-lags which occur in the real world.

Quite apart from the question of inflation, there is wide agreement that rationing is the right policy when important shortages occur. This seems to show that real income distribution effects would generally be held to be of considerably greater importance than the fulfilment or non-fulfilment of the theoretical 'optimum', supported as the latter is, in this case, by a wide belief in the intrinsic value of freedom of choice. Yet this particular 'optimum' condition is the most securely based of them all, since (a) it does not depend on the fulfilment of any of the other 'optima', and (b) because we can here deal with a very short period, since we can abstract from production changes, whence the application of the phrase 'economic man' presents least difficulty. There is no reason to suppose that rationing would not sometimes be the best policy in a fully socialized but individualistic economy. Finally, where such shortages do not occur, and with reference to things and individuals for which and whom freedom of choice is commonly regarded as good (e.g. excluding children and lunatics on the one hand, and such things as dangerous drugs on the other), then there is no disagreement about whether this condition ought to be satisfied or not.

We have already seen that the two remaining 'optimum' conditions of exchange (I (b) and I (c)) are much less securely based. The balancing of work against leisure, and of one job against another, cannot, in any normal system, be very plausibly made the subject of a marginal analysis of the free choices of actual individuals. Nor can we simply say that the system ought to be altered to make the reign of individual preferences more secure in this field, because individual workers are far from being independent, and therefore changes in the amount and kind of work done by one worker are liable to have considerable diseconomies of production. To put it in another way, variations in the amount and kind of work that Smith does cannot necessarily be made a matter of

indifference to Jones. With regard to these two conditions, it is clear from what was said in the last chapter that 'individual' can only be reasonably interpreted to apply to average individuals, taken over a fairly long period of time. This is not, of course, to say that actual individuals ought to be made to shift their jobs, if so required. That question clearly cannot be considered in the light of economics alone, we can only say that, given our value judgements, it must decrease the economic welfare of a particular individual if we force him to work where he does not want to, or if we give him an all-or-nothing choice as to the amount of work he does. The balancing of the claims of free choice for actual workers against the advantages of increased production is a matter towards the decision of which the static theory of welfare seems to give us little help. The 'optimum' conditions under discussion are formally independent of the 'optimum' production conditions, but it seems clear that, in practice, any attempt to increase the degree of their realization would not necessarily result in an improved state of affairs.

It seems remarkable that economic welfare arguments have not been pressed against such movements as the 'closed shop' when marginal-cost pricing in public utilities, the arguments for which depend, among many other things, on the realization of these conditions, has been suggested. This is not to say that economic welfare arguments can be plausibly used in this connexion. Decisions on such questions, where it might at first sight be thought that the theory of economic welfare would have something to say, are liable to be influenced by important ethical considerations, which are independent of economic welfare, and which dwarf into insignificance the rather shaky deductions which the latter theory offers for our guidance. That this is so does not seem to be merely an accident of the system, or the time. It arises from the fact that (a) the phrase 'individual preferences' cannot be very clearly or precisely interpreted, and because (b) work gives rise to external economies and diseconomies.

Thus there is no reason to suppose that an absolutist government, which accepted an individualistic 'welfare function', would be right, according to its own lights, if it attempted to increase the freedom of choice of workers; nor is there any reason to suppose that such a government would actually try to do this. There is no clear-cut line of division on this point between utopians and the rest.

We come now to the first production condition II (a), which im-

plies that different firms ought to be free to buy material factors of production at the same price, and human factors at price differentials depending on relative individual preferences for the different jobs. As far as the material factors are concerned, to put this condition into operation is a sufficient condition for an increase in welfare if any redistribution of income is not unfavourable. Probably discrimination between firms in the matter of supply of raw materials and power is not very common, except as the result of governmental control. Nor is it very likely that there would be a significant redistributive effect consequent on putting the condition into operation where it does not already hold. It thus appears to be one of the best cases for applying our criterion that we are likely to find. The condition is, in normal times, probably the least controversial of all. It is widely accepted that discrimination in the supply of factors to firms is a bad thing,¹ and any discriminating monopolistic supplier of a factor would probably get little sympathy if he were harmed as a result of putting the present condition into operation.

We have also noticed that this 'optimum' condition is strictly only a sufficient condition for an improvement if there are no external economies and diseconomies. The best method of dealing with these external effects is agreed. They ought, if possible, to be charged to firms, or, if the external effect is a 'nuisance' which could be easily avoided, controlling legislation may be more appropriate. In either case there is little point in discussing how much confidence we would have that, as the result, the gainers could overcompensate the losers, because the answer would depend entirely on the particular case and the magnitude of the external effects, and because this is not a controversial matter. As far as the human factors of production are concerned, the condition implies that firms ought to be free to employ what labour they want at the prevailing market price of labour. Again, in normal times, this condition is not controversial.

But, in abnormal times, as, for instance, when a country is suffering from an adverse balance of foreign trade, a choice of evils may have to be made. Both financial and physical controls, designed to correct the adverse balance, may, if they are to be

¹ This wide acceptance is, however, almost certainly based on the belief that such discrimination is unfair, rather than on considerations of (static) welfare theory.

effective, imply that one or other of the 'optimum' conditions must be broken. Thus we may, for instance, be faced with a choice between deflation and physical controls as means of shifting factors of production from home to export industries. The former method is liable to result in unemployment, and the latter may result in an infringement of several of the 'optimum' conditions, including the present one. Controls on either materials or labour alone will tend to upset the 'optimum' factor proportions. The preservation of 'optimum' proportions may then well be impossible without control of labour. We have already seen the difficulties which arise in trying to reconcile a rapid shift of labour in the short run with the preservation of relative wage-rates determined by individual preferences.

The upshot is that welfare theory does not assist us materially in deciding what is the best way of resolving 'abnormal' difficulties. And 'abnormalities' are, perhaps, not so very uncommon. On the other hand, when there is no particular pressing reason for upsetting the 'optimum' factor use condition, then whether it should or should not be fulfilled is not a point at issue.

The next 'optimum' condition, II (b), requires that output should always be adjusted, given a perfectly elastic supply of factors, until price is everywhere in the same proportion to marginal cost. We can best deal with this condition in conjunction with the final production condition, II (c), which requires that human factors (and all other factors which are also consumption goods) should be paid, given that there is no marginal taxation, the value of their marginal products. Together, the two conditions require that output should always be adjusted until, if possible, price is equal to marginal cost.

Let us first be clear what 'marginal cost' means in this connexion. It has been suggested that 'marginal cost' is vague. There are short-run and long-run marginal costs. In fact, there may be a different marginal cost for every different length of time which we may choose to allow for the marginal adjustment of output to be made. To which marginal cost ought price to be equated? The ambiguity of 'marginal cost' has allowed some writers to suppose that the theory says that price ought to be equated to long-run marginal cost. But it might be argued that all costs are marginal in the end, so that marginal cost pricing and average cost pricing are one and the same thing.

The above suggestion is, of course, fallacious. First, the theory does not claim that price ought always to be equal to marginal cost. It maintains that output ought always, if possible, to be adjusted until price is equal to marginal cost. One of the two points of so adjusting output is that the rate of transformation between any two goods ought always to be made, if possible, equal to the individuals' common marginal rate of substitution between the two. Thus, take the case of a bridge for which the marginal cost of a crossing is zero, i.e. a crossing cannot be transformed into anything else, because it uses up no factors of production. Therefore the output of crossings ought to be expanded until the price is zero. But, suppose that the bridge reaches full capacity at some positive price. Then, if price was lowered to zero, queues would form to cross the bridge. Demand would then be greater than supply, and the first exchange condition would not be satisfied. The 'optimum' pricing policy is always such as to equate supply and demand.

Thus output ought, if possible, to be adjusted until marginal cost equals price. Let us now suppose that short- and long-run marginal costs diverge. Ought output to be adjusted until short-run marginal cost or long-run marginal cost equals price? The theoretical answer is that output ought, in the short run, to be adjusted until short-run marginal cost equals price, and it ought, in the long run, to be adjusted until long-run marginal cost equals price. Once having reached the long-run position, i.e. once the supposedly 'optimum' plant is laid down, then, whatever happens to price, the short-run output with this plant ought theoretically to be adjusted so that short-run marginal cost equals price. The equality of both short-run and long-run marginal cost with price may, of course, be impossible. This does not matter. At any given moment, it is theoretically correct that short-run marginal cost should, if possible, be made equal to price. It may happen that such an output policy will prevent the firm earning enough to be able to make, without assistance, the long-run adjustment required of it. There is no logical difficulty here, since the firm can be subsidized.

Before we discuss the theoretical validity of this output criterion, there is one more possible source of confusion with which we must deal. What is the unit of output with which we are dealing when we speak of marginal cost? Are we, for instance, to take a passenger

train or a passenger's seat on the train as the unit? The answer to this depends entirely on the nature of the 'individuals' with which we are concerned. To see this, we have only to remember that the rate at which one product can be transformed into another is, theoretically, to be made equal to the 'individual's' rate of substitution between the two. Thus, in the case of the train, if the 'individual' is to be interpreted as the ordinary single passenger, then we are concerned with the marginal cost of carrying an extra passenger. This may be taken as being approximately equal to zero. In other words, a particular individual railway journey cannot be transformed into anything else. It follows that price should be lowered until either the train is full, or price is zero.

On the other hand, an 'individual' may be differently interpreted. If a school decides to hire a train for an outing, we must treat the school as a collective, and the train should be run only if the school pays the whole cost of running it. Normally, of course, it would not be plausible to treat the collection of people who happened to be assembled on a certain train as a collective. Nor would it, for instance, be plausible to treat all users of a certain park as a collective. The theory requires that no charge, or next to no charge, should be made for the use of most of these objects, parks, trains, &c., which are too big to be consumed by one person.

Let us now consider the conditions under which an output policy based on marginal costs would be valid. We saw in the last chapter that all the 'optimum' conditions of exchange, and the production conditions II (a) and II (b), would first require to be satisfied. Quite apart from the difficulties involved in supposing that individuals are perfectly consistent, we have in this chapter seen reason to believe that none of the conditions of exchange (except perhaps I (a) in 'normal' times) is likely to be very closely satisfied. This goes for a utopian society, set up with the 'optimum' conditions as its Bible, as much as for a society which knows no economic theory. The same is true, except when times are 'normal', for the production condition II (a). In the last chapter we saw that production condition II (b) is particularly shaky. We have to presuppose that actual individuals are free to choose the amount and kind of work they do, and that these can be varied at the margin. But this condition also requires that there be no taxation on the margin of effort, because, if there is such taxation, then the rate at which the individual is willing to exchange work for leisure

will not be equal to the rate at which such exchange results in greater production. This question of taxation must be examined at greater length.

It is evident that the 'optimum' conditions rule out both direct and indirect taxation. If there is direct taxation, then a worker will, if he behaves as an economic man, equate his marginal net earnings to the rate at which he is willing to substitute leisure for work. In which case his *net* earnings ought to equal the value of his marginal product. If price equals marginal cost, his net earnings will be less than this. But indirect taxation affects a man's net earnings in real terms in just the same way. Each man is assumed to bring his rate of substitution of leisure for work into line with the rate at which supplying more work enables him to consume more of the good he helps to produce. If this good is taxed, then this latter rate must be less than his marginal physical productivity. If it is some other good that is taxed, we have the same effect, because the purchasing power of the good he helps to produce in terms of the taxed good is reduced. Therefore the only permissible tax is a poll tax. It follows at once that the condition that marginal cost equals price is invalid in a country such as England, where marginal rates of taxation are far from negligible.

It may, however, be argued that there is no reason why, in a properly designed society, there should be any marginal taxation. This is a very dubious argument. In such a society some 'ideal' distribution of real income must be preserved. At the same time, everyone's net earnings must equal the value of their marginal product. But there is no reason to suppose that there would be anything 'ideal' about a distribution in which people received the value of their marginal products. The higher earners might still be considered to be too rich. If so, some of their real income must be removed by a poll tax. But to preserve the 'ideal', this so-called poll tax would have to vary with income earned. In which case it would not, of course, be a poll tax, and would offend against the 'optimum' conditions! It follows that the economic Utopia presupposes that it is considered that the 'ideal' distribution of real income is determined by marginal productivities.

The above is not the only difficulty. It is also exceedingly difficult to imagine a modern society where there would be no taxation, and where everyone was paid the value of their marginal products. Rents, where they could be collected, must cover all government

expenditure, the 'ideal' living standards of all those who do not work, and, perhaps, a budget surplus as well. There is a tendency to think that a social dividend, rather than taxation, would be the order of the day. This appears to be optimistic when we remember that many firms would be operated at a loss. Indeed, when we bring in dynamic elements and allow for the possibility of change, it is evident that a society which called itself 'ideal' would have to allow for a considerable degree of flexibility. Flexibility implies surplus capacity, and surplus capacity implies that marginal costs are less than average costs. Perhaps, then, all firms would be operated at a loss, in which case taxation might have to be very high. I think we can reasonably conclude that an ideal society must have taxation. But only a poll tax is permissible. Is there any reason why poll taxation should not be used? It seems quite obvious that it would be impossible to assess individuals' liability to such a tax in a manner which would be considered reasonable and fair. It would inevitably give rise to such grave injustices that it would be considered intolerable. Furthermore, the maintenance of full employment requires a very flexible tax system which can operate with rapidity, and a system of poll taxes would be very inflexible. It seems a trifle absurd to consider such a tax, the impracticability of which scarcely needs pointing out. We consider it only because some welfare economists have gaily bandied about the idea of 'lump-sum payments'.¹ It is abundantly clear that lump-sum confiscations and compensations cannot become a matter of routine policy. They can be used only occasionally, when exceptional changes are made.

We can thus conclude that it is impossible to envisage a society in which all the 'optimum' conditions, presupposed by the idea that price ought to equal marginal cost, are fulfilled. If for no other reason, the inevitable presence of marginal taxation would require that price be somewhat lower than marginal cost. Furthermore, the 'optimum' condition II (b) would require that the extent to which marginal cost was greater than price would depend on the capital-labour ratio. In which case, the 'optimum' condition which

¹ The significance of the payments being 'lump-sum' is that they must be uncorrelated with any economic category, correlation with which would upset the 'optimum' conditions. Even capital taxation, unless it is each time believed to be 'once and for all', is ruled out, because it would affect people's behaviour in respect of both saving and working. It would, in Professor Pigou's terminology, have 'announcement' effects.

lays it down that prices ought to be at least proportional to marginal costs could not be fulfilled. These conditions might thus, in practice, be inconsistent. Furthermore, the lower prices are made, in the endeavour to attain the 'ideal' output, the greater taxation may have to be.

There seems to be some evidence for the view that, over a wide field of manufacturing industry, marginal costs are fairly constant until absolute full capacity is reached. But absolute full capacity can surely only be an 'ideal' on paper. If output falls only a little short of full capacity, average cost may be considerably higher than marginal cost. Thus, the fact that price (if equal to average cost) may be considerably greater than marginal cost cannot be taken to be an indication that output is considerably below the so-called 'optimum'. This sort of consideration leads us into the theory of monopoly and monopolistic competition, the discussion of which we must defer to a later chapter.

We may sum up the present discussion by asking (as we have asked for the other 'optimum' conditions) what is required for it to be sufficient for an improvement in welfare always to adjust output wherever and whenever possible until price is equal to marginal cost. Formally the answer is that it can be proved to be sufficient only if all the 'optimum' conditions are put into operation at once, and if the resultant redistribution of income is considered to be not unfavourable, and if all external effects are absent. But we have seen that it is manifestly impossible to put all the conditions into operation. Indeed, with regard to all the 'optimum' conditions, except II (b), we have shown that there is no very good reason to suppose that a government determined to 'improve economic welfare', according to our criteria, would be justified in trying to see that they were at all closely satisfied. It therefore becomes highly unlikely that economists would be justified in informing such a government that output ought always to be adjusted until marginal cost was equal to price. They surely could not have any very great confidence in believing that, as a result, the gainers would be able to overcompensate the losers.

How can one begin to estimate the extent of the conceivable gains, even on the impossible assumption that all the other conditions were satisfied? There is clearly no way of measuring such potential gains. All that one could do would be to give the reader some rough idea of the adjustments in output that would result

Presumably the output of some public utilities would be rather greater. The output of those industries where competition was 'purest' would be reduced, notably agriculture and other primary products. There might be certain adjustments within manufacturing industry. The size of such adjustments could not be estimated without large-scale research into costs. My guess is that it would be rare for the resultant adjustment to be more than a very small percentage of total output. Against the gains, which the reader may think could conceivably result, must be set (a) the fact that some of the presupposed 'optimum' conditions are rather meaningless, since the behaviour-line analysis applies, at best, only very roughly; (b) the fact that it would seldom be at all clear that, according to our criteria, they ought to be satisfied, even if they could be.

In order to make price everywhere equal to marginal cost we would also need to alter the whole order of society. The whole of manufacturing industry would have to be socialized, since pure competition does not exist within this sphere. If this has to be done, then it is clear that dynamic arguments, taking into account the possible improvement or deterioration in such things as industrial relations, and managerial ability and zeal, and the effects on inventions and techniques, are vastly more important than the static arguments of economic welfare theory. Also, it is clear that the political and social changes, which would be involved, might have effects on welfare, for good or ill, which would dwarf the comparatively minor adjustments of output into utter insignificance.

If the idea of making marginal cost everywhere equal to price is abandoned, the question arises as to whether a more easily achieved part fulfilment of the 'optimum' conditions would not be a good thing. The thesis that it would be was advanced by Professor R. F. Kahn in his article 'Some Notes on Ideal Output'.¹ The idea is, essentially, to equalize marginal rates of transformation and substitution by getting prices everywhere in the same proportion to marginal costs—i.e. fulfil optimum condition II (b) and forget II (c). The argument is simply that if the ratio of price to marginal cost is greater in one productive unit *A* than in another *B* then a shift of factors of production from *B* to *A* will increase the national income.² This is because the ratio price : marginal cost is

¹ R. F. Kahn, 'Some Notes on Ideal Output', *EJ*, Mar. 1935.

² It will be shown in Ch. XII that an increase in the national income measured

equal to the ratio of the value of the marginal physical product of a factor to its price consequently a shift of a pound's worth of any factor from *B* to *A* must increase the value of the product.

This thesis cannot be theoretically valid unless it is assumed that the change will not affect the supply of original productive factors (work and saving). If it does affect it, then there is no guarantee that the national income will be increased. In general one must assume that the supply of productive factors may be changed, since the pattern of the outputs and prices of goods will be changed, and this may affect the supply of, e.g. leisure, through the relations of complementarity and substitutability which exist between leisure and each of the goods

This thesis that even if price cannot be made equal to marginal cost it should at least be equiproportional to it, is formally identical to the case for direct versus indirect taxes, which is examined in Appendix IV, to which the reader is invited to turn for further discussion of this point. But here it may be noted that the proportionality thesis, as it may be called, is a particular case of the thesis that it is better to have some optimum conditions satisfied rather than none, or more than fewer. There is no theoretical warrant for this (it is rather like saying one must be higher up a hill if one is on a ridge, where there is at least one direction which takes one downhill, than if one is not on a ridge), unless special assumptions are made. For instance, one can say that the validity of the exchange conditions does not depend upon the satisfaction of the production conditions, but this is valid only for a fixed set of goods. Similarly the proportionality thesis cannot be valid unless there is a fixed supply of factors of production.

Another difficulty inherent in the proportionality thesis is that some goods are both final consumers' goods and intermediate productive services, e.g. coal. If the price of electricity were greater than its marginal cost, and that of coal equal to its marginal cost, then the rate at which coal was transformed into electricity could not be equal to the rate at which the consumer was willing to substitute one for the other.

at prices prevailing after the change shows that the Scitovsky criterion is satisfied—but not satisfied in a sense which proves that the change causing the increase is a desirable change in our sense. The increase in national income here referred to in the text is in terms of prices reigning before the change, but so long as the planned shift in factors is small there is a high probability that such a change would also result in an increase at subsequent prices.

But Professor L. W. McKenzie has shown that the proportionality thesis would be invalid even if it were assumed that factor supply would be unaffected, and even if no goods were both final goods and factors of production.¹

In effect the thesis assumes that all goods are produced in productive units whose inputs consist only of original factors of production. If, as is always the case, a firm uses both original factors and intermediate products, then its relative usage of them will be 'distorted', since, if the price of the intermediate product is greater than its marginal cost, then the relative prices of these factors will not equal the rate at which more of the intermediate product could be obtained by devoting more of the original factor to its production. There will be a bias operating against intermediate products, which will be greater the greater the number of different productive units (in which price exceeds marginal cost equiproportionately) through which the intermediate product passes. Thus, although by shifting factors from a productive unit *A* in which price \cdot marginal cost is lower to one *B* where the ratio is higher, one ensures that the value of the new goods produced in *B* exceeds the value of those no longer produced in *A*, it does not follow that the value of the *final* goods produced in the economy is thereby increased.

All this is overwhelming against the proportionality thesis, viewed as a general theoretical proposition. But this is not the same as saying that it can have no practical value. Most detailed and partial applications of welfare theory will be via examining in particular cases whether a change in output or price policy would be likely to increase the national income. In making such an examination one may sometimes be justified in judging that certain *ad hoc* simplifying assumptions can be safely made, e.g. that the supply of original factors would be unchanged. Such predictions of an increase in national income must rest on comparisons of prices and (marginal) costs. Where, for some pair of goods, the relative marginal costs are greatly out of line with relative prices, there is a *prima facie* case for investigation. In making the investigation one will be aware of the fact that any change in the outputs of the two goods in question will affect not only their own relative prices and costs, but possibly those of many other goods. One will

¹ L. W. McKenzie, 'Ideal Output and the Interdependence of Firms', *E J.*, Dec. 1951.

also be aware of the fact that marginal costs may be partly in respect of goods whose price is already 'distorted' and one must keep one's eyes open for external economies and diseconomies, &c. Even given these elaborate complications, one may nevertheless sometimes be justified in the view that the national income could be increased by a change. Only if one is prepared to accept the thesis that costs have no bearing on what and how much should be produced can one really deny this. But, it should be noted, that even after arrival at this point one still has not got a theoretical warrant for the change¹

¹ See pp 231-2.

CHAPTER X

INDIVISIBILITIES AND CONSUMERS' SURPLUS

THE 'optimum' conditions of exchange and production which were developed in Chapter VIII, and discussed in Chapter IX, apply only to marginal changes. That is sufficiently obvious. The whole analysis was conducted in terms of rates of exchange or transformation; and wherever it makes sense to speak of rates, there, by definition, the marginal analysis is applicable. Where, however, the amount of a thing bought or produced can only be varied in jumps, i.e. where there are 'indivisibilities', there, again by definition, the marginal analysis cannot apply.

Thus, to say that some indivisibility occurs is only another way of saying that a marginal analysis cannot be applied. The problem remains of when it is legitimate to apply the calculus, and when not. It has been seen that, in the physical sciences, the way to answer this question would be to apply the calculus, and test the resultant conclusions. But, in practice, welfare conclusions about society cannot be tested. The only procedure left is to make some estimation of how well the defining characteristics of our concepts (e.g. if a marginal analysis is to be applied, 'goods' must be perfectly divisible) are realized. One's faith, or lack of faith, in the conclusions can be based only on this kind of estimation.

In discussing the theory of consumers' behaviour in Chapters II and III, it was presupposed that the objects of economic choice were perfectly divisible. A consequence of this assumption is that the individual would remain on the same behaviour line if one unit of a good were withdrawn and the money, which he paid for it, were given back. We can put this in another way by saying that it is assumed that there is no consumer's surplus on the marginal unit of consumption. If, in reality, consumption units are expensive, it may not be true that it is thus a matter of indifference to a man whether he consumes the n th unit or not. Or, again, to put the same point in another way, a consumer normally buys so few of such things as motor-cars, refrigerators, and wireless sets, that it does not really make much sense to speak of the rate at which he

is willing to substitute one for the other. The case is even worse when we consider different jobs. One clearly cannot speak of the marginal rate at which a man is willing to exchange being a don for being a dustman.

We have already seen that the fact that jobs are not perfectly divisible is a good reason for not taking those 'optimum' conditions, which depend on this assumption, too seriously. The obvious indivisibility of many consumption goods is an additional reason, especially if one is concerned with the 'optimum' output of manufactured goods of a luxury or semi-luxury kind. Few consumers will ever buy more than a very few identical units of such goods. Thus, we cannot plausibly say that an individual brings the rate at which he is willing to exchange a car for a radiogram into line with their relative prices. If consumers really could, and did, do this with respect to all goods, it would follow that it would be impossible ever to raise the price of any superior good without every individual reducing his purchases. This is manifestly not the case. It could be true that no one man would ever own more than one radiogram, but it certainly would not then be true that a small rise in the price of radiograms would result in none being sold. Equally, it is not absolutely certain that one will get rid of an employee by reducing his wages a little.

The above paragraphs may help us to see which kind of changes can reasonably be said to be marginal, and which not. Strictly speaking, a change is marginal, for the purposes of welfare theory, only if it does not affect the consumption of any individual by more than a marginal amount. Thus, if we are to be strict, we cannot apply the marginal analysis to any change (however small) in the production of a good of which the individual does not consume many units. Even if 1,000 Bentleys are produced per annum, one extra Bentley cannot necessarily be considered to be a marginal unit, because no man consumes many Bentleys per annum. On the other hand, if 1,000 Bentleys are sold per annum, it is reasonably plausible to suppose that there would be some consumer who would scarcely be willing to pay any more than he in fact did. In which case there would be no loss of consumers' surplus on the withdrawal of the marginal (as we may therefore call it) car. On the other hand, if the minimum possible adjustment was, say, 100 Bentleys, it would be unplausible to suppose that no consumer would lose as a result of such a shift in production. A good test of

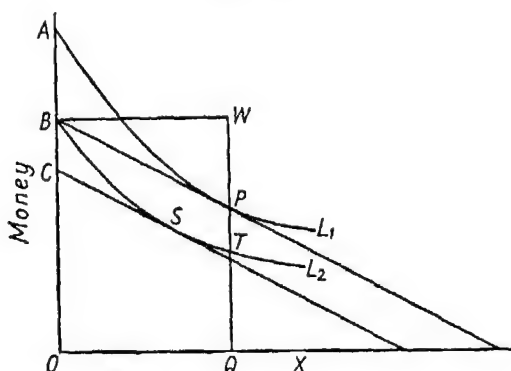
whether an increase in production is marginal or not is to ask whether it would be possible to sell the increased number of units (or would have been possible to sell those units which are no longer produced) for significantly more than they in fact sell, if discrimination between customers were possible. If this would be possible, then the change is not marginal. Notice the presence of the word 'significantly'. It is there to indicate that, in the last analysis, whether a change can be considered to be marginal or not is a matter of personal judgement. There is no scientific test of when to apply the analysis, and when not. A marginal change must, for the purposes of welfare theory, also be marginal with respect to workers as well as to consumers. If an insignificantly small increase or reduction in wages would not cause a movement of workers sufficient to result in the required change of production, then that change cannot be considered to be marginal.

A particular, but important, case where the marginal analysis cannot be applied, is where the effective unit of production is so large that no single consumer would buy it—e.g. new roads, railway lines, parks, or museums. In such cases the good may be divisible in that consumption of it can be shared though in such cases the application of behaviour-line analysis is often complicated by important external economies and diseconomies. But the unit of production is manifestly too large for the decision, whether to produce it or not, to be considered 'marginal'. In other words the price which would equate supply and demand for the good, would be such that many people would have been willing to pay far more than they in fact have to.

Since, by definition, consumers' surplus does not arise in respect of marginal changes, it was thus necessary to define the scope of marginal changes (that is also the range within which the 'optimum' marginal conditions of production and exchange are valid). We must now define the concept of consumers' surplus more carefully. With Marshall it was the difference between the sum of money actually paid by an individual for a given number of units of some consumption good, and the sum of money represented by the relevant area under his demand curve for that good. This difference was supposed to be a money measure of the excess satisfaction which the consumer derived from that product, so long as we do not take this idea too seriously, there is no doubt that it has a certain plausibility. As it stood with Marshall, the doctrine pre-

supposed, in fact, a cardinal measure of 'utility'. Professor Hicks has, however, rehabilitated the theory in terms of an ordinal utility system,¹ and consumers' surplus has come to be regarded not as a money measure of excess satisfaction (though if one pleases one can still so regard it) but rather as the sum of money which would require to be paid to a consumer, or which he would be required to pay after some change was made, if it was desired to raise or reduce him to the same level of satisfaction (to the same behaviour line) as before the change.

FIG X



The changes to be considered may be (finite) changes of the quantity of goods or of the price. Let us consider quantity changes first.

In Fig. X money is measured along the vertical axis, and amounts of some good *X* along the horizontal axis. In the initial situation, let us suppose that the consumer has an income of *OB*, and that the slope of *BP* represents the price at which he is free to

¹ J. R. Hicks, 'The Rehabilitation of Consumers' Surplus', *RES*, vol. viii, 1940-1. See also among others A. M. Henderson, 'Consumers' Surplus and the Compensating Variation', *ibid.*, J. R. Hicks, 'Consumers' Surplus and Index Numbers', *ibid.*, vol. ix, no. 2, R. L. Bishop, 'Consumers' Surplus and Cardinal Utility', *QJE*, May 1943, J. R. Hicks, 'The Four Consumers' Surpluses', *RES*, vol. xi, 1943, F. Knight, 'Realism and Relevance in the Theory of Demand', *JPE*, vol. lvi, 1944, J. R. Hicks, 'The Generalized Theory of Consumers' Surplus', *RES*, vol. xiii, 1945-6, 'L'Économie de bien-être et la théorie des surplus du consommateur', and 'Quelques applications de la théorie des surplus du consommateur', *Bulletin de l'Institut de science économique appliquée*, numéro 2, Dec 1946, E. J. Mishan, 'Realism and Relevance in Consumers' Surplus', *RES*, vol. xv, no. 37, 1947-8.

buy X . P therefore represents his equilibrium position where he reaches the behaviour line L_1 .

How much money would it be necessary to pay the consumer in order to compensate him for the loss of the opportunity to buy X , i.e. how much is needed to compensate him if X is withdrawn from the market? He must still be able to reach the curve L_1 . The amount is therefore AB . The natural name for this sum of money is the 'quantity-compensating variation', i.e. it is the sum of money required to compensate the consumer for the withdrawal of X from the market.¹

Let us now ask what sum of money the consumer could relinquish, as a result of the introduction of X , without making himself worse off. Let our consumer's initial position be B , on the curve L_2 , i.e. he has the same income, but there is no X . X could now be introduced to the market at the price BP , and, at the same time, the consumer's income be reduced by BC . His equilibrium position would then be S (CS being parallel to BP), at which point he would be on the same curve as before (L_2). This sum of money we propose to call the quantity-equilibrating variation² (in income).

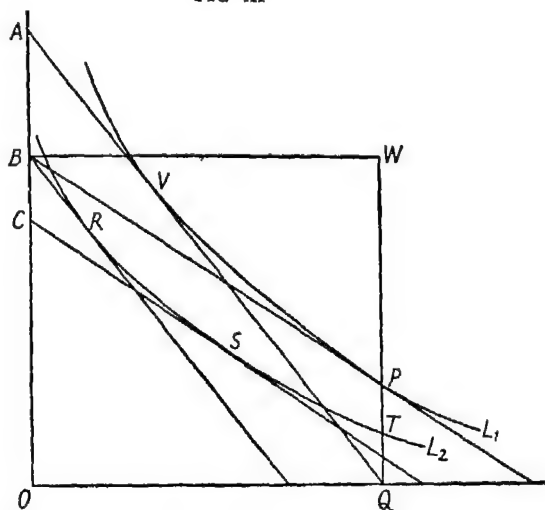
What relation do these two sums of money, AB and BC , have to the sum of money which Marshall defined as consumers' surplus? The area under the demand curve corresponds, if there is no change in the marginal utility of money, to the sum of money which the consumer would give up in order to buy the quantity he in fact buys, rather than go without it altogether. This sum is represented by the length WT in Fig. X. Since he actually pays WP , consumers' surplus is PT . But, if the consumer was free to buy as much or as little of X as he pleased, he would not, in fact, continue to buy OQ if he was mulcted of PT . By reducing his purchases he would reach a higher curve. Thus he can be mulcted of BC , which is greater than PT , without suffering any loss. If, however, the behaviour lines are parallel (i.e. have parallel tangents) the sums represented by AB , BC , and PT are all equal. The assumption of a behaviour-line system having this property over the relevant range corresponds to Marshall's assumption of a

¹ This sum of money, AB , was, however, named the equilibrating variation by Professor Hicks. The name compensating variation was reserved for another use.

² This is what Professor Hicks named the quantity-compensating variation. But it is the sum of money which a consumer is able to give up without becoming worse off—and it seems misleading to call this a compensating variation.

constant marginal utility of money. And it is only on this assumption that PT is equal to the usual demand-curve definition of consumers' surplus. We thus have the result that the quantity-compensating and equilibrating variations are equal to the area under the demand curve, if the marginal utility of money is constant, or if (in Hicksian terminology) there is no income effect.

FIG XI



We may now turn to price changes. In Fig XI we again give our consumer an income of OB . P is then the initial equilibrium position, with price represented by the slope of BP . Suppose the price is raised to BR . The consumer then settles at R , and is on the curve L_2 instead of on L_1 as before. If we now raise his income by AB , he will settle at V , which is again on L_1 . Therefore AB is the increase in income which just compensates him for the increase in the price of X . We therefore (again reversing the Hicksian terminology) call this the price-compensating income variation.

If, however, BR had been the initial price line, the consumer would have been in the position R . A fall in price to BP would enable him to reach the curve L_1 . If, however, his income is reduced by BC , he can only reach the position S on L_2 . Therefore we call BC the price-equilibrating income variation.

Again, PT (assuming a constant marginal utility of money)

measures the extra amount which the consumer would be willing to pay in order to buy OQ of X , at the old price, rather than see the price raised to BR . As before, if the behaviour lines have parallel tangents within the relevant area of the map, the sum of money PT is equal both to AB and BC . In other words, if we neglect income effects, the compensating and equilibrating variations in income, whether in respect of price or quantity changes, are equal to the relevant area under the individual's demand curve. And the relevant area under the market demand curve, on the usual assumptions of 'perfect divisibility', 'economic men', and no 'income effects', shows the amount of compensation which individuals could pay, or would have to be paid, if they are neither to gain nor lose as a result of some change. It is, however, important to remember that the demand curve which is relevant is a Marshallian demand curve, it being assumed that all other prices are constant, and do not alter as a result of the change under consideration.¹

We have said that the above theory is designed to provide a criterion for whether non-marginal adjustments of production ought to be made or not. Indeed, the theory tries to answer the same old question 'Could those who gained by this change conceivably overcompensate the losers?', where the change referred to is a non-marginal jump. Whenever it cannot plausibly be assumed that all consumers of those goods which constitute a minimum addition to output (and similarly for a reduction) are marginal consumers, then it becomes necessary to invoke consumers' surplus in order to be able to find out whether overcompensation would be conceivable or not. Owing to technical indivisibilities, it is very likely that most changes in output which are the result of changes in plant, rather than changes in raw materials and labour, would theoretically require a consumers'-surplus analysis, thus, if a theoretical answer is to be given to the question whether some new investment (which will certainly always result in a non-marginal change if output with the new plant is extended until $MC = P$) should be made, then the answer can only be given in terms of consumers' surplus, unless we know the behaviour maps of all consumers—in which case we could, in theory, calculate whether the total of the equilibrating variations in income for each individual exceeded the total of the compensat-

¹ But there is some doubt about whether this really was Marshall's assumption. See R. F. G. Alford, 'Marshall's Demand Curve', *Economica*, Feb. 1956.

ing variations, i.e. whether overcompensation would be conceivable

One of the more important of these non-marginal changes would be the introduction of a new good,¹ or the total withdrawal of some old good from production. We should also note that such changes may give rise to a gain or a loss in producers' surplus in the form of factor rents. There would, for instance, be a gain in producers' surplus if factors were withdrawn from uses in which their supply was perfectly elastic, in order to increase the output of some good in the production of which factors were not in perfectly elastic supply. This particular complication we shall in future ignore, it being assumed that costs are exclusive of workers' rents.

The traditional consumers'-surplus criterion is to the effect that a change should be made if the sum of money represented by the area under the relevant section of the demand curve is greater than the change in total cost, or, to put the same thing in another way, if a perfectly discriminating monopolist could cover costs. The theoretical justification for this criterion is clear. The consumers could pay exactly this sum of money, and be neither better

¹ Formally, a new good cannot be introduced into an old behaviour-line map. We can only guess whether the individual will be on a higher curve of his new map than he would be on the same map if he continued to have the present collection. The two situations are not strictly comparable. The best we can do is to imagine that the consumer knew all about the new good all the time, and that it had a definite place on his scale of likes and dislikes, and that he was simply prevented from buying it, because it had, let us say, an infinite price. This is, of course, unsatisfactory. The said good cannot, in fact, have been known to him, and its introduction might very well shift his rates of substitution between other goods. Some things make us develop a liking for or a dislike of other things. Much the same kind of difficulty occurs if we consider large price changes, which bring goods within the reach of those who could not afford them before. Many people know that caviar exists, but few know what it is like to eat it.

The index-number criterion for an increase in economic welfare remains formally valid. We can say, after the new good is introduced, that the consumer could, or could not, have bought his former collection of goods, and we know that in the former situation he certainly could not have bought the present collection, if it contains a new good. But the index-number criterion now fails us for a decrease in welfare. We can never say that in the earlier situation he could have bought the goods of the later situation. Thus, if we take our criteria too seriously, 'on a higher curve' becomes meaningless, while the index-number criterion can never show us that the introduction of a new good is wrong. In the text we ignore these difficulties, for which procedure the only defence can be that one has to swallow so many camels anyway that an additional one may be considered to be marginal.

off nor worse off—if they are 'economic men' and if there are no income effects. Also, since total costs represent the total sum of money paid to the productive factors, none of whom, it is assumed, earn any rents, then they also are neither better nor worse off as a result of the change—if they are all 'economic men', &c. Thus, given sufficient assumptions, we have the result that the gainers could overcompensate the losers if the sum of money represented by the area under the relevant section of the demand curve is greater than total costs. For the sake of brevity we will, for the rest of this chapter, speak of a change as 'correct' if the gainers could conceivably overcompensate the losers. There is perhaps, at this stage, no need to warn readers that 'correct' is only to be understood in this formal sense.

We may ask how this simple consumers'-surplus criterion compared with the profitability criterion. It is clear that the two are the same only if the change is marginal. Thus the 'correctness' of pure competition is only proved, given that the addition of a firm to a purely competitive industry in a purely competitive system results only in a marginal addition to output. This is obviously unrealistic. It is also clear that 'pure competition' is incompatible with the introduction of any new good. The *formal* validity of the profit criterion can thus only be demonstrated given the most unrealistic assumptions.

After the above digression let us turn back to the simple consumers'-surplus criterion. One of its chief demerits is that it is the result of a partial analysis only. It is assumed that, as a result of the change, there will be no significant change of price elsewhere. The demand curve is drawn up on this assumption. This is sometimes forgotten, and it is made to appear that the criterion has a wider validity than is really plausible. Under what conditions can it reasonably be assumed that prices elsewhere would not change? One possibility is to assume that the analysis is only intended to be long-run, and to assume that constancy of long-run costs is the rule. This is not very plausible, and the danger of introducing long-run considerations has already been pointed out. An alternative is to assume that the product under consideration is independent of all other goods, in the sense that an increase in its output would not shift the demand or supply curve, and therefore the price, of any other good by more than an insignificant amount. The increased supply of factors, which would permit the projected

increase of production, would be drawn only from the margins of production elsewhere.

But, even when the good is independent in the above sense, it still requires to be assumed that price is equal to marginal cost elsewhere (either because pure competition prevails, which is impossible, or because a collectivist economy works in terms of the Lernerian rule, which is also impossible). If price is greater than marginal cost, then a small decrease in output elsewhere would result in a small decrease of profits, or producers' surplus, which would not be offset by any gain to consumers. This smallness would not be of the second order, and might therefore be significant. The consumers' surplus¹ resulting from the change must then be greater than the loss of producers' surplus (in the above sense) in other lines of production. The simple consumers'-surplus criterion therefore fails—even given independence—so soon as we remove the assumption that price is everywhere equal to marginal cost. Equally, the profit criterion is invalidated by imperfect competition. For instance, the profit which may accrue to any firm which sets up when price is generally greater than marginal cost, takes no account of the decrease in producers' surplus which it causes elsewhere. On the other hand, if a firm makes a profit without discrimination, there is almost certainly some gain in consumers' surplus, which also does not accrue to it, this may offset the loss of producers' surplus elsewhere. Thus, in an imperfectly competitive world, the profit criterion might well be more 'correct' than the simple consumers'-surplus criterion, it leaves out two factors of opposite sign, which may be better than simply leaving out one. But, of course, our present assumptions are very unreal. It should also be noted that we are certainly not considering the case of a new entrant to a monopolistic industry. Obviously, in that case, we could not reasonably assume independence.

Let us now reverse our assumptions, and suppose that price is everywhere equal to marginal cost, but the good with which we are concerned is not independent. For simplicity, we will assume that there is one close substitute, but that all other goods are independent of this pair of substitutes.² The introduction of the new

¹ For simplicity, 'consumers' surplus on A' will in future be taken to mean 'Area under demand curve less total costs' (rather than 'less amount paid').

² We cannot literally take a two-good or three-good case. Consumers' surplus would then become quite useless. See A. M. Henderson, 'The Pricing of Public Utility Undertakings', *Manchester School*, Sept. 1947, p. 247, n. 1.

good *A* will then shift the demand curve for the old good *B* to the left, and the output of *B* will fall. Let us also assume that marginal cost is constant for *B*, so that the price of *B* does not change. The area under the demand curve for *A* is then still relevant, because other prices are all constant. Consumers' surplus on *B* is, of course, reduced, but that is irrelevant to the problem. It would be wrong to suppose that we should take account of this reduction. That is not difficult to see. Some consumers of *B* will not buy any of the new good *A*, but their consumers' surplus may be reduced by the advent of *A*. Yet they clearly cannot be made worse off by this advent, since their consumption is entirely unaffected. On the other hand, those who do begin to consume *A* gain, whether or not they consumed *B* before. Their gain is 'correctly' measured by the consumers' surplus on *A*. Since marginal cost is assumed constant for *B*, there will be no loss of producers' surplus on *B*. But there may be on the other independent goods, depending on whether or not price is equal to marginal cost. Therefore we have the same criterion as for when the new good was independent, but price was not equal to marginal cost, to wit, the new good should be introduced if the consumers' surplus on it is greater than the loss of producers' surplus elsewhere. Once again, there is no reason to suppose that the profit criterion is less 'correct' than the simple consumers'-surplus criterion, which ignores the loss of producers' surplus elsewhere. If by the profit criterion we mean 'would an "ideal" output be profitable?', it is possible, but by no means certain, that this criterion would underestimate the 'advantages'¹ of introducing a new good. Wherever there is a large indivisibility, a loss would be made on the 'optimum' output. So long as consumers' surplus on *A* is greater than the loss of producers' surplus elsewhere, then some loss is theoretically tolerable. If by 'profitable' we mean 'a simple monopolist could cover costs', then, of course, it is less likely that profitability will underestimate the 'advantage'. Equally, it is possible that this latter criterion would overestimate the 'advantage', e.g. this is possible for the case of entry into a monopolistically competitive industry. Thus we have found that even if marginal costs are constant for any substitute one can be sure that the simple consumers'-surplus criterion is correct only if price is everywhere equal to marginal cost, and only in these

¹ By 'advantage' I here mean 'probability that the gainers could overcompensate the losers'

circumstances can one say that the profit criterion underestimates the advantages of introducing the new good. Otherwise one must allow for a loss of producers' surplus on the old goods.

The criterion—consumers' surplus less loss of producers' surplus elsewhere—ceases to have any meaning in terms of areas under Marshallian demand curves, when we remove the assumption of constant marginal cost for *B* for the assumptions under which such a curve is drawn up are rendered invalid

Professor Hicks has suggested¹ a means by which such a case could be reduced to terms of areas under demand curves and marginal-cost curves. He suggests that these curves should be drawn up step by step, assuming that at each step prices elsewhere are allowed to adjust themselves to each small increase in the output of the new good. For each small step, changes in output elsewhere would always be small, and also marginal, so long as price was equal to marginal cost, and therefore there would be no loss or gain of consumers' plus producers' surplus for at each step price would alter infinitesimally, which would result in a finite gain or loss of producers' surplus at the expense of consumers' surplus, but the change in the sum of the two would be infinitesimal. This may formally solve the problem raised by the interdependence of prices, although it still relies on the assumption that price is everywhere equal to marginal cost.

However, the above ingenious construction is open to criticism. First, if price is everywhere equal to marginal cost, we must be considering either a 'purely competitive' system or a 'socialist blueprint' system. Let us take the first alternative. In a purely competitive system no indivisibilities occur, and therefore the step-by-step adjustment described by Professor Hicks really could (indeed would) occur. Therefore it appears that what Professor Hicks has done is to demonstrate the theoretical 'ideality' of purely competitive investment adjustments in terms of areas under demand curves—something which could not be done by means of a normal partial analysis, unless interdependence of prices was simply assumed away. But, of course, such a demonstration is not really required. Where no indivisibilities occur, and prices are treated as parameters, then the ordinary marginal analysis of Chapter VIII

¹ J. R. Hicks, 'Quelques applications de la théorie des surplus du consommateur', *Bulletin de l'Institut de science économique appliquée*, Dec. 1946, p. 24

suffices to prove the point.¹ Let us, then, alternatively suppose that we are dealing, not with pure competition, but with a 'socialist blue-print' model in which large indivisibilities occur, but in which price is nevertheless kept equal to marginal cost, and that we are considering an indivisible change (since for no other change is any appeal to consumers'-surplus theory necessary). How, then, can the Hicksian demand curve be drawn? Its points show the prices at which various absurd 'non-optimum' outputs could be sold, given that prices elsewhere are those which would occur if these outputs were actually produced. If one guessed the area under such a demand curve, it is evident that no practical test could prove one wrong, nor yet does this construction appear to be of any assistance in aiding one to make an intelligent guess as to whether the gainers could compensate the losers. Finally, of course, we still have not accounted for the loss of producers' surplus, which would occur if price was not everywhere equal to marginal cost.

The above, rather intricate, discussion, which is not complete, but which I believe to have been already carried beyond the point of zero marginal value, now requires to be summed up. First, the simple consumers'-surplus criterion is valid only if the good is independent (or any substitutes are produced at constant marginal cost), and if price is everywhere equal to marginal cost. This implies that it would, at best, be valid only in an economy in which all the 'optimum' conditions of production and exchange were satisfied. Secondly, in such an economy, we could deal with goods which were not independent and whose substitutes were not produced at constant marginal cost, only by means of a Hicksian demand curve—which, as we have seen, is open at least to the same objection. Thus, unless price is equal to marginal cost everywhere, consumers'-surplus theory is useless, since there would result a multitude of small losses elsewhere, which could not possibly be estimated. The only exception might be if the increase in output were entirely at the expense of a strong substitute with constant

¹ In pure competition theory, we admittedly postulate one indivisible factor—the entrepreneur—in order to ensure that the long-run average cost of a firm always rises at some point. But, although the entrepreneur is indivisible in relation to the firm, entrepreneurship is regarded as perfectly divisible in relation to the industry. This dual nature of entrepreneurship is necessary because pure competition theory seeks to demonstrate the ideal output in relation both to firms, which are infinitesimal parts of an industry, and to industries.

marginal costs when, if price were greater than marginal cost, the loss of producers' surplus elsewhere might be estimated

We do not propose to attempt to deal with cases of complementarity, nor with the elimination of a certain good, except to say that the latter appears to present worse problems than the introduction of a new good. Confining ourselves, then, to the cases of either the introduction of a new good or an indivisible expansion in the production of an old one, we may say that there appears to be a *prima facie* argument for the validity of some form of the consumers'-surplus criterion only in the following cases

- (a) when the good is independent, and price is everywhere equal to marginal cost,
- (b) when there are one or two good substitutes with constant marginal costs, in which case losses of producers' surplus elsewhere might be estimated

The case is, however, only a *prima facie* one. There is the obvious fact that areas under demand curves cannot be measured. Within very wide limits, it would be anyone's guess as to whether the consumers'-surplus criterion would be satisfied or not. It will, of course, be objected at this point that guesswork is, in any case, impossible to avoid. Before the event, profitability is only guesswork. Surely, it will be said, if consumers' surplus provides a correct criterion (which, of course, it does not, except in very special cases) it is better to guess at it, rather than at profitability. Let us, at least, guess at something which gives the right answer if we guess right. This defence¹ is plausible, but beside the point. Profitability is not, of course, 'ideal' (except, again, in very special cases), but, at least, one knows after the event whether one guessed right or not. The great trouble with any consumers'-surplus criterion is that one does not know, even after the event, whether the criterion was satisfied. In fact, the plain truth is that it does not yield us a criterion at all—or if it can be said to yield a criterion, then it is one which is open to anyone's interpretation within very wide limits.

To the above objections we may add that we have in this chapter been supposing that individuals are all 'economic', and never die; thus the great difficulties concerned with the application of the whole welfare system to the real world must be added to the

¹ Cf. A. P. Lerner, *Economics of Control*, p. 198

particular difficulties associated with consumers' surplus. Even then, we have only been using the theory to estimate whether the 'gainers' could overcompensate the 'losers', ignoring the factor losses and rents (i.e. assuming that amounts and kinds of work are perfectly divisible), external economies and diseconomies, and the distribution of real income.

Our conclusion is that consumers' surplus is a totally useless theoretical toy. In this, we have to disagree with Professor Hicks's conclusion.

But enough has been said to show that consumers' surplus is not a mere economic plaything, a *curiosum*. It is the foundation of an important branch of Economics, a branch cultivated with superb success by Marshall, Edgeworth and Pigou, shockingly neglected in the last twenty years, but urgently needing reconstruction on a broader basis. Beyond all doubt it is still capable of much further development, if economists are to play their part in shaping the canons of economic policy fit for a new age, they will have to build on the foundations of consumers' surplus.¹

Professor Hicks has himself cultivated this branch of economics with superb success. But consumers' surplus is, nevertheless, a toy, in the sense that it cannot provide us with any practical objective criterion. We do not deny that, in the few theoretical cases in which we can contrast, say, gains in consumers' surplus on *A* (imagined as the area under the demand curve less the area of total cost) with losses of producers' surplus (imagined as profits) in another firm producing *B*—then the concept helps one towards an imaginative understanding of the nature of the problem. It is, in fact, to a limited extent, useful as a heuristic device—so long as its limitations, as such, are understood. It is also, admittedly, a useful phrase for referring to the fact that a person may be willing to pay more for something than he has to, and also for pointing out the fact that the amount someone pays for something cannot be taken as a measure of the satisfaction it gives him, and that the price of a good cannot be taken as a measure of its importance. But beyond that we cannot go.

Whereas Professor Hicks has 'rehabilitated' consumers' surplus, Professor Samuelson has gone to some trouble to prove it 'superfluous'. He argues its superfluity as follows.

Should discriminating prices be allowed if a uniform price will not

¹ J. R. Hicks, 'Rehabilitation of Consumers' Surplus', *RES* (1940)

keep an activity in business? Should the number of firms producing differentiated products be reduced, and in what way? Should a particular small industry be expanded or contracted by means of tax or subsidy? etc. etc. Aside from their extraneous interpersonal aspects, all of these questions can more conveniently (and more honestly!) be answered in terms of the consumers' ordinal preference field.¹

This is a rather surprising passage. It implies not only that all individuals are 'economic', but also that we have a copy of everyone's 'preference field' filed away. One must presume that Professor Samuelson is concerned only with whether to reduce the number of imaginary firms producing imaginary differentiated products in an imaginary society. Then the answer is indeed easy, to wit, 'Yes, if the imaginary gainers are imagined to overcompensate the imaginary losers'. We can readily agree that consumers' surplus is surplus in formal logic, but the point of the theory surely was to establish a practical criterion. At any rate, we have chosen to meet its claims at that level, and have argued that it fails completely. But that is a different matter.

Later Professor Samuelson argues somewhat differently.

. there arises the problem as to whether or not a commodity should be produced at all. If it is produced, the marginal costs conditions should be realized, but there may be a better maximum where none is produced. Here the extreme position is of the corner type, and the conventional equalities must be replaced by inequalities. This involves decision-making at a distance, we cannot feel our way to the optimum, step by step, but must boldly experiment with diverse combinations. Where such 'all or none' phenomena are concerned, things often get worse before they get better, and so decisions *im kleinen* will not suffice.

. In these cases involving finite decisions we must ask consumers (or Robinson Crusoe) whether a given abundance of fewer commodities is preferred to an alternative scarcity of a greater range of commodities.²

In a footnote to the above passage, Professor Samuelson adds.

In certain special cases consumers' surplus may be employed to describe finite inequalities. But these cases are rare, and, in any case, we are better off if we use direct methods.

Our analysis is in conformity with this footnote. There are few theoretical cases in which a consumers'-surplus criterion is valid. But the remark that we are better off if we use direct methods is

¹ *Foundations of Economic Analysis*, p. 197

² *Op. cit.*, p. 241

mystifying. What direct methods are there? We can hardly hold a plebiscite to answer the question whether a certain firm should be closed. The above quotation brilliantly states the problem of indivisibilities. But sometimes it is a little difficult to decide whether Professor Samuelson is discussing the real world, or whether he is indulging himself in what he regards as a vice—translating mathematics into metaphor. For instance, when he says 'We cannot feel our way to the optimum, step by step, but must boldly experiment with diverse combinations', is he saying that the infinitesimal calculus cannot be applied to finite changes?—or is he suggesting that a proper procedure would be, for instance, boldly to close down, say, one quarter of all shops, and then see if the country had become happier—and if it had not, to put them back again? Many economic changes are irreversible except at great cost. Why, then, should we proceed boldly rather than cautiously? When he says we must 'ask consumers', does he really mean we should get consumers to vote on every indivisible move—or is he only saying that the formal answer can, in the theoretical calculus, be arrived at only by reference to 'indifference maps'? It seems probable that Professor Samuelson is translating mathematics into metaphor rather than trying to help towards any practical solution.

In contrast to any so-called consumers'-surplus criterion, profitability really is a criterion. If the aim is profits, and an enterprise is started with that in view, then we can, at least, tell whether its objective was achieved. Profitability is easy to test, and it is possible to gain experience in profit estimation. There remains the fact that the objective is not 'ideal', and also the fact that considerable monopoly power may have to be wielded in order to obtain the profit. This is not, in itself, an objection, because one can also estimate, and gain experience in estimating, the profit or loss that would accrue as a result of making the change and adopting a certain pricing policy. In extreme cases, as where the pricing policy is to charge nothing, then, of course, any such objective criterion ceases to be possible. We do not in this chapter wish to go into more practical matters, but merely to point out that if profitability (with or without certain conditions imposed) is abandoned, as a criterion for making finite changes, then there is no definite, generally applicable, rule which can replace it.

We should note that any criterion for making a finite change is formally independent of the so-called 'optimum' usage of the

plant, the erection of which, say, constitutes the finite change. It is not, however, entirely independent in practice. Let us suppose that it has been decided that a change should be made if an intelligent business man estimated that profits could be made, given that he could use any output and price policy he chose. If we then make such a change, but impose a certain pricing policy, such as making the good free, we lose the test of whether the business man was right or not. The profits become hypothetical, and once more it is anyone's guess.

We shall, in the next chapter, deal further with the practical problems which have been raised above. Before leaving the subject of profitability, it may be worth while seeing whether there is much that can be (roughly) said in favour of, and against, profits as a criterion, at a theoretical level. An investment will be said to pass the test of profitability if a good business man could make profits without price discrimination, or with only a mild degree of price discrimination. We will again take the case of introducing a new good, and will first suppose that the good has no close substitutes, also, let us assume that it is the general rule that price is greater than marginal cost. We then have the case that the business man cannot tap some consumers' surplus, which is a 'gain', but also he ignores the 'loss' of producers' surplus elsewhere. Since these are factors which offset each other, it obviously cannot be proved that the business man's decision would be 'incorrect'. Equally obviously it cannot be proved 'correct'. As a second case, let us take the introduction of a new firm into a monopolistically, or oligopolistically, competitive industry. Price is everywhere (by definition) greater than marginal cost. In order to be able to talk in terms of consumers' surplus, we assume that there is a conventional price (or that there are constant marginal costs and a normal gross profit margin). We then again have the case that the business man fails to be able to tap some consumers' surplus, but also ignores the losses of producers' surplus caused elsewhere. Again, we cannot possibly say whether the introduction of the new firm is 'correct' or 'incorrect'. Indeed, only in the totally unrealistic and impossible case of the introduction of an independent good into a world where price is everywhere equal to marginal cost can it be proved that the profit criterion is 'incorrect'. Equally, it can, of course, never be proved to be 'correct'.

I think enough has now been said to show that there is no

general theoretical argument, which can be applied to the real world, either in favour of or against the criterion suggested above. Moreover, the same would be true of a host of alternative criteria. Our whole system is not only too unrealistic, but also involves us in the estimation of so many magnitudes which cannot be objectively measured, that it is quite senseless to suppose that it enables us to pick and choose, in any rational manner, between alternative criteria—unless one such criterion appears to be, at the theoretical level, fantastically wrong. The conclusion is clear. The best criterion for investment decisions must, within wide limits, be determined at dynamic and administrative levels—and not at the level of static welfare theory.

CHAPTER XI

OUTPUT AND PRICE POLICY IN PUBLIC ENTERPRISE

THIS chapter is an essay in applied welfare economics. We propose to review and discuss some of the contributions to the marginal-cost controversy. The suggestion of marginal-cost pricing in public utilities in a mixed economy appears to have been first made by Professor Hotelling in his article 'The General Welfare in relation to problems of Taxation and of Railway and Utility Rates'.¹ Professor Lerner, in his *Economics of Control*, also considers a mixed economy, but assumes that pure, or nearly pure, competition prevails in the private sector. Apparently inspired by these contributions, there was, in the post war years, an extensive discussion of the problem.²

It was not always quite clear whether the contributors were trying to decide on the best price and output policy for public enterprises in England (or in England in normal times, given a mixed economy), or for socialized firms in a fully collectivist economy. We shall assume that the problem relates to a relatively small number of public enterprises in a predominantly private enterprise economy, and in particular to the British economy, under present conditions of taxation.

Two obvious facts spring to mind at once. First, price is not equal to marginal cost elsewhere, and, second, there is heavy marginal taxation. We have already seen that, in such circumstances, pure theory offers no guidance.³ The supposedly optimal character of marginal-cost pricing depends upon all the 'optimum' conditions being satisfied everywhere. There is a tendency to

¹ *Econometrica*, July 1938. The practice of marginal-cost pricing in a socialist economy was advocated earlier, chiefly by A. P. Lerner. Cf. 'Status and Dynamics in Socialist Economics', *E J.*, June 1937.

² The following is a select list of the contributions (There is no need to name titles, since all the articles mentioned below are on the same topic.) J. E. Meade and J. M. Fleming, *E J.*, Dec. 1944, T. Wilson, *E J.*, Dec. 1945, R. H. Coase, *Economica*, Aug. 1946, W. A. Lewis, *Economica*, Nov. 1946, H. Norris, *Economica*, Feb. 1947, A. M. Henderson, *Manchester School*, Sept. 1947, and *RES*, vol. xvi (1), no. 39, 1948-9. The latter two articles will be later referred to as Henderson (*MS*) and Henderson (*RES*).

³ See pp. 162 ff.

suggest that the correct policy, when price can be assumed to be greater than marginal cost elsewhere, would be to make the price-marginal-cost ratio equal to the average prevailing elsewhere. But there is no theoretical warrant for this, even if one could safely assume that the supply of labour would not vary with any change in the price and output policy of the nationalized industries.¹ It is true, given this assumption, that if factors were moved out of production units with lower price-marginal-cost ratios and into production units with higher ones then the value of the extra goods would exceed those foregone. But this does not necessarily mean that the national income would be increased, except on the unreal assumption that all firms employ only original factors of production and produce only final goods.² But there would be no guarantee even that factors would on balance move where the price-marginal-cost ratio was higher as a result of moving the ratio in the nationalized industries from unity towards the average prevailing in the economy. This is because the directions of the factor flows would be governed by the substitutabilities of the various goods. Only if a certain price-marginal-cost ratio were the lowest in the economy does it follow that raising it a little would have this effect. Equally, pure theory does not suggest that it would *not* be a good thing to make the ratio equal to the average. All this is, in any case, rather academic, since no one knows what the average ratio in the economy is.

Almost all the contributors to the controversy failed to notice that the theory did *not*, in general, conclude that price ought to equal marginal cost. Even such opponents of marginal-cost pricing as Professor Lewis and Mr. Coase seem to have assumed that the output, which would be the effect of marginal-cost pricing, would be, in some sense, ideal. The exception was A. M. Henderson,³ who argued that price should (in theory) be greater than marginal cost, except in the case when marginal cost is zero. This special case of zero marginal cost will be dealt with later.

So much for orthodox theory. We have argued earlier that no welfare conclusion can be reached unless it is at least given that no unfavourable redistribution of income results. Professor Hotelling⁴ and Mr. Coase⁵ appear to have been the only contributors who seriously considered real income distribution. Professor Hotelling

¹ See p. 163.

² See p. 164.

³ *M.S.*, p. 242.

⁴ *Loc. cit.*, p. 259.

⁵ *Loc. cit.*, pp. 176-7.

evidently believed that a policy of marginal-cost pricing, combined with covering overheads by general taxation, would not have a significant effect on distribution. Thus he argued that a great variety of public works would be undertaken and 'a rough randomness in distribution would be ample to ensure such a distribution of benefits that most persons in every part of the country would be better off by reason of the programme as a whole'.¹ This argument is a (prior) application of what we have called the Hicksian justification for ignoring income distribution. Mr Coase disagreed with the view that the resultant distribution ought to be neglected. It is certainly obvious that some people would pay more taxation, and get little or no benefit. Taking, however, a broad view, one could scarcely say that there would be what one might call an exciting change in distribution. But we must remember that the distributional effects must not merely be small, they must also be small in relation to the extent to which the gainers could over-compensate the losers. It is much more difficult to say that the distributional effects would be relatively small in this sense.

Mr Coase implied that any redistributive effects will be bad, because he presupposed an 'ideal' distribution of income. We have argued above that this presupposition is meaningless and dangerous. The redistributive effects, if not negligible, will be regarded as either favourable or unfavourable, and can therefore be used as an argument for or against marginal-cost pricing. Mr. Coase also argued, against Professor Hotelling, that compensation could not be paid. Those who gain most would be those who consumed most public services, as Mr. Coase correctly argued, ordinary taxation procedures could not be used to redistribute income from consumers of goods produced under conditions of decreasing average costs to all other consumers.² He argued in favour of multi-part tariffs, because they would not produce any significant redistribution of income. Also, overheads would be covered out of consumers' surplus, and therefore the 'optimum' work-leisure condition would not be further disturbed by an increase in general taxation. The same argument may also, to a lesser extent, support the covering overheads out of local rates.³

¹ Loc cit, p 259

² Loc cit, p 178. Of course, a lump-sum tax scheme could theoretically remove this difficulty. But, then, lump-sum taxes are neither ordinary, nor practical.

³ See Henderson, *MS*, p 239

A. M. Henderson also considered income distribution. He quoted the Hotelling-Hicks justification for ignoring it, but appeared to agree, in the main, with Mr Coase. He wrote:

And, in fact, in most countries we find complaints that state help in this field has benefited some areas or some classes at the expense of extra taxation borne by the whole community. Such charges are almost incapable of disproof, and, whether they are justified or not, there is some objection to a policy which is almost certain to provoke them.¹

This appears to introduce income distribution as something which is external to economic welfare, which has to be considered only as a matter of political expediency. But as we have emphasized, the question of income distribution is logically prior to the question of the ideal output. We should also notice that the sort of complaints to which A. M. Henderson referred may not be complaints so much about income distribution as complaints of inequality of treatment by the government; or they may result from the view that 'he who benefits ought to pay', an ethical view which is independent of views about income distribution and may well be inconsistent with them. It is, after all, quite possible to hold that *A* ought to pay on the ground that he benefits, but not pay on the ground that he is poor.

This brings us to Professor Lewis's article. It is particularly interesting because it introduces moral arguments, which are external to welfare economics, in the sense in which we defined the word 'economic'. By definition, under the heading of economic welfare, we have concerned ourselves only with the amount of things each individual got, and with how much of each he ought to have. Professor Lewis is, however, interested in the reasons why a man gets what he does. He appears to relate the amount an individual ought to have to the functions he plays in the economy. This is a view which has dropped out of fashion recently. Welfare theory admittedly tells us that a man ought to be paid the value of his marginal product, but it is not supposed to relate the amount he ought to be able to consume, ex tax, to his marginal productivity, or to anything else. Welfare economists, where they consider income distribution at all, usually seem to assume that the 'ideal' distribution is something which is quite independent of the amount of work individuals do, or the risks they take, &c

¹ Henderson, *MS*, p. 230

Professor Lewis argued that if price is not equal to short-run marginal cost, then specific equipment is used less than it ought to be. Thus, like most of the other contributors, he appears wrongly to have assumed that there is a strong *prima facie* case for an output at which marginal cost equals price. But against the advantages of an 'ideal' output there are, he maintained, certain disadvantages to be set. He argued that, if there is excess plant capacity, then setting price equal to 'immediately escapable' (short-run marginal) cost may mean that amortization quotas will not be earned on that part of the plant which has to be renewed. Thus short-run marginal cost may be less than long-run marginal cost. Only one reason, which is applicable to public concerns, is given as to why this would be a bad thing. He wrote:

This transfer of income to the consumer is a gift which he never expected, to which he has no particular right, and which he will receive only temporarily while the excess capacity lasts.¹

It appears, then, that Professor Lewis considers that a consumer ought to pay the whole long-run average cost of anything he consumes. This is a kind of value judgement which is, by definition, extraneous to our concept of economic welfare. That does not in the least mean that such value judgements as these ought to be ignored. On the contrary, they may be very important. People undoubtedly do think in terms of 'Is *X* entitled to *Y*?', 'Has *X* a right to *Y*?', 'Is *Z* a fair price?', 'Why should I pay for Smith's wig?', and so on. These moral ideas may be connected with property, or the labour theory of value (which is itself, at root, a property concept. One has a right to, that is, a property right to, or right of ownership of, whatever one has 'mixed one's labour with'). Or they may not be amenable to any particular classification. But, in any case, they will always play a considerable part in any decision as to what policy is the right policy. They are welfare arguments, though not, by our definition, economic welfare arguments.

Apart from the long-run divisible and escapable cost (long-run marginal costs), it is also argued that escapable *indivisible* costs ought to be covered 'if the retention of these resources by the consumers is to be justified'.² Again we have the same argument. It must be noticed that, although Professor Lewis, as well as Mr.

¹ Loc. cit., p. 237.

² Loc. cit., p. 239.

Coase, used this argument in support of multi-part tariffs, or discrimination, his argument had quite a different basis from that of Mr Coase. The latter was concerned with an ideal real income distribution. As I have pointed out, Professor Lewis was concerned not so much with the amount consumers consume (he never mentioned real income distribution) but with their *right* to consume what they do. Although he advocated discrimination, he also recognized that, in some cases, discrimination would be regarded as unfair. For example:

The man who has to cross Dupuit's bridge to see his dying father is mulcted thoroughly; the man who wishes only to see the scenery on the other side gets off lightly. The public's attitude to price discrimination is not capable of rational exposition. Broadly speaking, it dislikes discrimination, but special cases are tolerated. Discrimination according to income is accepted from doctors, the Government, or electricity undertakings, and used to be accepted from shopkeepers, but would now probably be resented if tried by the baker or the 'bus conductor. On the railways it is freely accepted as between commodities, but not as between different parcels of the same commodity.¹

Nevertheless, Professor Lewis went on

Where there are escapable indivisible expenses to be covered, the case for discrimination is clear. It secures an output nearer the optimum, and levies the indivisible cost on those who get the greatest benefit (measured by their consumers' surplus) from retaining the indivisible resource in this line of production.

But why is the case so clear? There are two arguments in favour of it. First, the gainers could conceivably overcompensate the losers, and, secondly, those pay most who benefit most. But against it there is the argument 'people ought to be treated equally', i.e. 'there ought not to be discrimination'. The conclusion depends on the weight one attaches to these arguments. If, in general, it is true, as we have argued, that the conclusion that the gainers could overcompensate the losers is almost always an extremely shaky deduction, then perhaps one's dislike of discrimination might outweigh the pay-most-who-benefit-most argument.

There may also be inescapable costs. If price covers only escapable costs, the undertaking will show a loss. Professor Lewis argued that there is no reason why the mere fact that resources have been specialized (that certain costs are bygone) should

¹ *Loc cit*, p. 7

throw the cost on investors or anyone (e.g. taxpayers) but those consumers for whose benefit the resources have been put into their present form. Only if there is overcapacity due to mistaken foresight should the investors (or taxpayers) bear some loss, price should still cover the cost of that part of the permanent assets which is in use. Finally, the point is also made that the nuisance of rapidly fluctuating prices may outweigh the advantages of a moment-to-moment adjustment to supply and demand. Thus the conclusion is as follows

. price should not fluctuate irregularly, should cover not only short-run but also long-run marginal cost, not only long-run marginal cost but also, preferably by way of price discrimination, escapable indivisible cost as well, and not only these, but as much of the non-renewable assets as can be extracted from consumers' surplus by price discrimination (but only to the extent to which such assets are actually used) ¹

But how did Professor Lewis weigh his different arguments in order to arrive at this conclusion? It seems that he thought that, even if discrimination is impossible, price should cover long-run marginal costs and escapable indivisible cost as well. It is evident, then, that he considered that the *he-who-benefits-ought-to-pay* argument outweighed the *ideal-output* argument (Professor Lewis admittedly regarded inability to earn amortization quotas as, in itself, an argument in favour of covering these costs—but why is it an argument in the case of public utilities? No reason was given.) We can also gather that this argument, in conjunction with the *ideal-output* argument, outweighs a possible dislike of discrimination. Finally, he appears to imply that non-renewable assets need not be covered, unless they can be covered out of consumers' surplus (when they ought to be covered). The two arguments in favour of covering the permanent assets are, first, that he who benefits from the specialization of resources ought to pay, and, secondly, that investors (and taxpayers presumably) ought only to lose as a result of mistaken foresight ². But suppose discrimination is impossible. Then it appears to be implied that the permanent assets need not be covered, in which case the above two arguments are overruled. By what? Apparently only by the *ideal-output* argument. There thus seems to be an unexplained shift in the weighting of the arguments as we pass from escapable indivisible to inescapable costs.

¹ Loc cit, p 246

² Loc cit, p 246

I, and many others, will find some of Professor Lewis's value judgements acceptable. To the extent that they are acceptable, it follows that the economic welfare calculus, with its limited value premises, is inadequate to decide the kind of question which we are trying to decide. It is notable that A. M. Henderson, in his summing-up of the controversy,¹ ignored these extra-economic value considerations, confining himself to economic welfare as we have defined it. We say this in order to emphasize our view that the economic welfare calculus, even given all the value judgements required in order to apply it, is an inadequate instrument. It should also be noticed that many people would want to say that the considerations raised by Professor Lewis are *economic* considerations.

We must now consider some further objections which have been raised against marginal-cost pricing. As we suggested in the previous chapter, the output and pricing policy adopted cannot, in practice, be treated as independent of investment criteria. This was pointed out by Mr. T. Wilson in the following passage

... In theory one must then fall back upon consumers' and producers' surpluses and engage in the pleasant diversion of measuring areas under a series of curves. Unhappily such a procedure . . . could yield a large variety of answers from which anyone with an axe to grind could take his choice. Probably the only way to get at any sort of approximate answer would be to consider whether it would be possible to cover the total costs of the undertaking if it were run monopolistically. This is the sort of forecast which the monopolist himself has to make, so presumably a rough answer could be obtained. There is, however, this difference. Since the monopolist will try to exploit to at least this extent, he will have some check on the accuracy of his forecasting. A socialist undertaking run according to the Rule² will have no check at all, and will, therefore, be unable to build up the experience which the monopolist will possess.³

It may be argued that the question of new investment would not arise, because a larger output can always be obtained from the same plant, if output is adjusted until price equals marginal cost, and if marginal cost is, at that output, less than average cost. This, however, only applies when the investment is for the purpose of providing more of the same good in the same market. For instance, one cannot say that it is wrong to build another ship, or run

¹ *MS*

² See A. Lerner, *Economics of Control*, p. 64 (my note)

³ *Loc. cit.*, p. 458

another train, because there are empty berths or seats on those one already has. The above objection may apply to the gas or electricity supply of a single town or district. But, even then, if one is considering the extension of such services to a new, but similar, market, it would be very helpful to know whether those services in the old areas could have paid their way. If we were wondering whether to build an underground railway in Glasgow, it would certainly help to know whether one in Birmingham could run at a profit. Thus, if we are considering the best output criterion for nationalized undertakings in general, we must not confine our attention to the case of public utilities which have a homogeneous product, and are already fairly fully developed, without much fresh territory to conquer.

Mr. Wilson's argument, especially when taken in conjunction with the well-known 'empire-building' argument, undoubtedly provides a strong reason for making the managers of a socialized undertaking cover total costs somehow. It is a strong argument, because there is no practical alternative criterion to profitability; and because the results of misinvestment can be much more harmful than a failure to achieve from moment to moment an 'ideal' output from a given plant, even supposing that there is such a thing in the real world as an 'ideal' output, and even supposing that, if there were, it could be discovered in practice.

The question of efficiency has also been raised.¹ By 'efficiency' we mean efficiency in attaining the lowest possible cost for a given output, given the plant and the prices of co-operating factors. A. M. Henderson excluded operating efficiency as a consideration because 'all systems of pricing of public utilities abandon the automatic incentive to efficiency which is supplied by the profit motive'.² This does not, in itself, seem an adequate reason. Dismissal for inefficiency might well be an incentive. In which case different systems could theoretically be evaluated according to the extent to which they make the discovery of inefficiency, in the above sense, possible. Nevertheless, Henderson may be right. Whatever the system, operating efficiency shows up only on the cost side. High costs can, in this field, often be prevented from showing themselves in the profit and loss account. On the other hand it may be argued, possibly with some justification, that subsidization, even when the subsidy is fixed, tends to make

¹ Meade and Fleming, pp. 323-4 and 335-7

² *MS*, p. 234

managers think that costs do not matter very much, and tends to make them careless about efficiency. Again, it is quite possible that an instruction to maximize profits would be more of an incentive to efficiency than, for instance, the instruction to cover average costs (especially if it was all too easy to cover them), although the profits earned would not directly benefit the managers.

Mr Norris raised the problem of common costs (which may, however, be exceptional in public utilities), marginal costs are then indeterminate; and, even when there is only one product, they cannot be very precisely determined.¹ Professor Lewis has also made the important point that marginal cost may include some user cost.² A. M. Henderson remarked on this, and emphasized that user cost involves a guess at the unknowable, and that marginal cost ceases to be an objective magnitude and becomes, in part, a guess about the future. He added

I feel that there can be no doubt that the marginal cost principle is³ disqualified from being the sole or even the main principle of pricing on the score of administrative difficulty. It fails to supply a principle which is clear and unambiguous, and it is not possible for inspection to enforce compliance.³

The general case against marginal-cost pricing is clearly overwhelming. All the arguments, even the rather dubious purely theoretical ideal-output argument, are against it. In general, there is nothing to be said for it, but, in particular cases, some of the arguments could tell in its favour. First, it is conceivable that the distribution-of-real-income argument might be held to be favourable. This is only likely to be the case when the consumers of the product of some public utility are more or less coincident with some social, or income, class or group. But this may happen. For instance, it might be desired to redistribute real income in favour of the inhabitants of undeveloped areas. Charging for electricity at marginal cost would tend to have this effect. Secondly, in certain cases the ideal-output argument may be in favour. This is the case when marginal cost is zero. A zero marginal cost means that the good in question could not be transformed into anything else. Therefore the complication engendered by the fact that price is not equal to marginal cost elsewhere does not arise. Moreover, when marginal cost is zero, all the other 'optimum' conditions of

¹ Loc cit, p. 58.

² RES., p. 17

³ Loc cit, p. 232

production and exchange do not require to be satisfied. If marginal cost is zero, one can be fairly sure that some people could be made better off without making anyone worse off, simply by lowering the price. Admittedly there will be some small production changes elsewhere, both on account of substitution and income effects. But, at least, the deduction is very much less shaky than when marginal cost is not very small.

It should be noted that zero or near-zero short-run marginal cost is very common. We may instance museums, parks, bridges, passenger-trains and buses, broadcasting, water-supply, and sometimes even roads (certainly in the case of light traffic). It at once springs to mind that usage of most of these facilities is already free at the margin. Museums, parks, bridges, and water normally cost one nothing to consume. The charge for one's wireless licence does not vary with the amount one listens. Roads are free except to motorists, who pay a small charge for immediate usage in the shape of the petrol tax. They are entirely free to pedestrians and bicyclists. This is, presumably, because marginal-cost pricing is supported by the common-sense value judgement, 'Surely people should be allowed to use something as much as they like if it costs nothing'. We may ask why an exception is always made in the case of transport. There is nothing more obvious than that, if a bus or train or ship is running half-empty, it would cost next to nothing to carry an extra passenger. Part of the answer lies in the equation of supply and demand. Museums, parks, and bridges are not often full. Broadcasting has an infinite capacity, and can never be fully used. The theoretical pricing rule, when marginal cost is zero, is 'Lower price until the service is fully used—if necessary to zero'. This could hardly be done in the case of buses or trains. Everyone would wait until the last moment for the price to come down, when there would be a horrid scramble. It would obviously be impracticable to hold an auction at every station at which the train stopped. Equally, if transport were free, there would be no criterion for when it was desirable or not to make an indivisible change, i.e. run another bus, or another train. Also the 'ideal' would not be attained. People who wanted to travel very badly would be crowded out by joy-riders, who would not have travelled if they had had to pay anything.

Administrative impossibility, fluctuating prices, and the leaving of an enormous number of small but indivisible changes to the

whim of the manager, combine to make marginal-cost pricing impossible in the case of transport. It should be noticed that those who believe that the road-rail question can be settled on marginal-cost principles do not consider true marginal cost. They average costs to some extent, thereby ignoring some consumers' surplus. It is obviously right to do so. But it means that the best resolution of such problems is a matter of judgement, and not of scientific principle. When, for instance, A. M. Henderson wrote, ' . . . The inefficiency arises from attempts to force traffic to go by rail when the marginal cost is lower than for road transport, although the pricing system is such that the road charge is the lower',¹ he means that, say, an extra 100,000 passengers per annum could be carried by rail at an average extra cost per head which would be small compared to the average extra cost if they went by road. If we really followed short-run marginal cost principles, the road-rail problem would certainly not be solved. In such cases as this, one can only take 'marginal cost' in a very broad, and theoretically illegitimate, sense.

This leaves us with such things as water, museums, parks, broadcasting, roads, and bridges. They are free at the margin, except for motor-traffic on the roads. The arguments against them being free, are (a) that there is no criterion for when to build more museums, roads, &c, and (b) that their costs may contribute to marginal taxation. Where such things are provided for out of local finance, the danger of over-development is not very serious. The ratepayers would have something to say, and in the end the district would lose population. Also marginal taxation is not thereby increased. With broadcasting the danger is also slight, and, again, the costs are (more than) recovered from consumers. Moreover in many of these cases broader considerations of welfare and culture would, in many people's minds, justify a development which could not be justified by any purely economic argument. The case of roads is more difficult. The lack of any good criterion could lead either to underdevelopment or overdevelopment. In practice, in England, where something is financed through the central budget, underdevelopment is more likely in cases where political emotions are not strongly aroused. Overdevelopment is more probable where the investment is self-financing, and the undertaking is better placed than others to draw upon the public's

¹ *MS*, p. 241

consumers' surplus. But if some check on investment in roads were required, it could be provided by limiting the investment to such as can be financed out of consumers' surplus, by vehicle taxation and local rates. This is, of course, no answer to the question 'Should a particular new road be built from *A* to *B*?' The theoretical answer would require at least an estimation of consumers' surplus on this particular road, and of loss of producers' surplus on the railways. No tolerable system of pricing could possibly yield an automatic investment criterion here. It appears, then, that the investment-criterion argument cannot be used against a free road system though, paradoxically, there may be a case for tolls if desirable development is being retarded by the exigencies of central finance.

Let us now sum up the argument as far as we have progressed. First, we may say that when marginal cost is zero there is a good *prima facie* case for making the service free. When there is also some investment check, and the losses can be covered other than by marginal taxation, and in an equitable manner, then the case for making the services free, or almost free, is well established. Second, when marginal cost is not small, but average costs are considerably higher than marginal costs, there may be a weak *prima facie* case for charging somewhat less than average cost for the service, but never for actually charging marginal cost. The *prima facie* case is stronger (i.e. we could have more confidence that the gainers could overcompensate the losers) the lower marginal cost is in relation to average cost. It only becomes very strong when marginal cost is zero, and the overheads could be covered without upsetting the 'optimum' conditions.

The *prima facie* case may often have to be over-ruled by one or other of the arguments mentioned above. But, if marginal cost is zero and nothing is charged, or if the policy is to charge rather less than average cost when there is a large divergence between average and marginal cost, then the objections (a) that marginal cost is indeterminate, and (b) that the instruction 'produce until price equals marginal cost' is administratively impossible, or would result in inconveniently fluctuating prices, do not apply. These are really only strong objections against trying to operate the Lerner 'rule'. The objections to the *prima facie* case which have so far been raised and which remain are

(a) a possible unfavourable redistribution of income;

- (b) the he-who-benefits-should-pay kind of argument,
- (c) the lack-of-a-criterion-for-indivisible-changes argument,
- (d) the fact that it may be impossible to cover overheads without increasing marginal taxation,
- (e) the fact that subsidization may tend to cause inefficiency by encouraging the idea that, since there is no harm in making a loss, costs do not matter much

Some of the above objections will apply in some cases and not in others. The extent to which they will apply depends very much on the method chosen for meeting the loss which will arise from reducing charges below average costs. A. M. Henderson has reviewed the different methods in this light.¹ There are, broadly speaking, three possibilities—national taxation, local taxation, and price discrimination by means of multi-part tariffs.²

The first possibility, national taxation, is clearly the worst. It implies an increase in taxation at the margin of effort, and will also normally result in an increase of indirect taxation. It also implies subsidization with, possibly, a consequent decrease in managerial efficiency. These effects may offset what would otherwise be the theoretical advantages, even in cases where marginal cost is zero. To some extent one's common-sense judgement is warped in such a matter, because the benefits of making a service free are, in some cases, obvious. The offsetting effect of increased taxation is very widely spread, and any ill effects will scarcely be noticeable if only a single case is considered. When, however, taxation has already reached a high proportion of the national income, it may be worth while to guard against this form of myopia. Furthermore, all the other three arguments (a), (b), and (c) may weigh against it. There is likely to be some income redistribution, which might be unfavourable. Some people will pay for benefits they do not receive, and there is no check on 'empire-building' investment. It would clearly be very difficult to find a case in which one could, given any plausible set of value judgements, say with some reasonable degree of confidence that it would be right to reduce price below average cost, and finance the cost by an increase in general taxation (i.e. adopt the Hotelling-Lerner solution).

¹ *MS*

² Where there is a multi-part tariff, when I refer to the charge or price, I mean the charge which varies directly with the amount of the good or service consumed by the individual, e.g. the charge per kilowatt-hour for electricity, or per therm for gas.

The second method is local taxation in the form of rates. Where the benefits of the public service are local, this means of payment is superior on all counts to national taxation. Marginal taxation is not increased, subsidization is not required, redistributive effects are likely to be small, and, broadly speaking, those who benefit pay.¹ Furthermore, there is much more likely to be a check on investment. Where the benefits of the service are widespread, however, this method of payment can be ruled out by the redistribution and the he-who-benefits-should-pay argument. For instance, if a large and expensive bridge was built to carry national roads and railway lines, no one would argue that it ought to be a charge on local rates.

The third method is the multi-part tariff. This method may not enable the 'ideal' output to be produced. The overhead charge will normally have to be greater than the expense which can be directly attributed to each consumer (e.g. installation charges for electricity, &c.), and certain people who would just be willing to pay consumer cost may be excluded. Motor-car taxation will, for instance, exclude a fringe of would-be motorists. Alternatively, the variable charge will have to be greater than marginal cost. The multi-part tariff is, in fact, only an approximation to the theoretical 'ideal' of perfect discrimination. This we would not hold as a serious argument against it. As we have seen, *the* ideal output only exists in theory. Except when marginal cost is zero, and overheads can, in fact, be met out of surplus of some kind, it is indeterminate. And, in any case, we have seen that the theory, which lies behind the concept of an 'ideal output', has at best only a very rough and ready application to the real world. It is a mistake to suppose that anything except a very rough approximation to the 'ideal', even when it is theoretically determinate, can be confidently held to be beneficial. On all other counts the multi-part tariff is superior, even to a charge on rates, where it is applicable. If the charge is on rates, some will pay who get no benefit. Similarly, a multi-part tariff prevents any significant redistribution of income, which is, on the whole, likely to be an advantage. It also provides a check on investment. The finance of the undertaking is autonomous.² This may be an advantage, because those who are experienced in the running of the business can take all or most of the decisions. Furthermore, the

¹ This would be more true if full rating of industrial and agricultural property were restored.

² See Henderson, *MS*, p. 234.

managers have a reasonably definite pricing system, and they can gain the experience necessary to decide whether some new undertaking would pay for itself with that pricing system. But the danger of any generalization must be noted at this point. If of two strongly competing industries one can exploit a multi-part tariff, and the other cannot, the first may be overdeveloped relative to the second. This is very probably the case with gas and electricity in England.¹

There is one special disadvantage of the multi-part tariff; it normally involves discrimination, which may be thought to be unfair. The larger the difference between marginal and average cost, and the nearer to marginal cost one tries to get, the greater the discrimination would have to be. Whether discrimination can be worked in this way depends mainly on whether suitable impersonal categories (e.g. size of motor-car, or house) can be found as a basis for discrimination. In my judgement, and for the usual reasons, it would be folly to strain after the 'ideal' by attempting to discriminate in a manner which would be regarded as unfair. Here my emphasis is rather different to that of Professor Lewis, simply because I do not believe one can attach much weight to the 'optimum' output argument.

We can safely conclude that where it is possible to finance losses, due to charging less than average cost, either by means of the rates, or better still by a multi-part or two-part tariff, then the case for reducing price below average cost (assuming that marginal cost is substantially less than average cost) is very much stronger than if part or all of the loss has to be borne by national taxation. Where these methods are not available, and therefore the whole loss would have to be borne by general marginal taxation, and where the service is one that is consumed by individuals,² then I

¹ See I. M. D. Little, *The Price of Fuel*, O.U.P., 1953, chs. v-vii.

² Henderson (*MS*, p. 237) treats defence as a public utility paid for out of general taxation. But things such as battleships are not consumed by individuals—and they play no part in the 'welfare' scheme we examine. It is absurd to say that defence ought to be financed through general taxation arranged so that the taxpayer pays no more than the consumer's surplus he derives from it. Ought those, who would not be willing to contribute anything to defence, to have their income-tax reduced? Individual preferences play no part where there is no mechanism by which they can be expressed. When people vote, they do not vote on particular issues, and, in any case, the price mechanism is not a 'Yes'-'No' affair. There are no wasted votes, and no minorities. This is remarked on, because there is a tendency to pretend that consumers' preferences are expressed in the same sort of way through the ballot-box as they are through the price mechanism.

think we would, at least, require to have the following conditions satisfied:

- (a) either that almost all individuals benefit to some extent, or that the income redistribution would be favourable;
- (b) that marginal cost is very small in relation to average cost,
- (c) that a multiplicity of indivisible decisions is not, as a result, left without any criterion

Can we pause at this stage of the argument and draw any general conclusions? The only conclusion that seems to emerge is that nationalized industries should *at least* aim to cover total costs, and even here one might occasionally want to make exceptions. But the fact that one cannot draw up general rules as to tariffs and output policy must not be taken to imply that the economist has no contribution to make to the problem in particular cases. We have earlier dismissed the idea that the ratio of price marginal cost should be made equal to some average (unknown) value for that ratio in the economy. We have also seen that there is nothing ideal about the 'proportionality' thesis.¹ But that is different from saying that relative prices and relative marginal products do not matter. We saw that the idea lying behind a rise or fall in a price marginal-cost ratio is the shift of factors to industries where the value of their marginal product will be greater.² Now where a good has one or a few strong substitutes, and where the demand for these goods taken together is inelastic, one may be able to predict the direction that these factor movements would take and hence be able to predict, with fair confidence, that an increase in the national income would result from a change in pricing policy.³ One may also of course take into account the possibility of changes in factor supply, in income distribution, and external economies. But the point is that detailed study may well enable one to make recommendations with some confidence; in particular cases many of the general objections to the application of 'welfare' analysis may be seen to have little weight. In my opinion this detailed approach is the proper one to make, and generalities about price marginal-cost ratios, or the use of particular kinds of tariffs, are rather useless,

¹ See pp 162-5 above

² See pp 162-3 above

³ It has been emphasized in earlier chapters that this is not sufficient evidence, even combined with a favourable redistribution, that such a change is desirable but, while insufficient, it is still evidence.

and may easily be worse than useless. This, however, is not the place to descend into such detail.¹

Let us return to generalities concerning the price and output policy of nationalized industry. There is one problem we have not yet mentioned, the solution to which has some bearing on the output of nationalized industries. This is the problem of deciding what total costs should be deemed to be. It may, at first, seem surprising that there should be such a problem, which certainly does not exist under private ownership. It is the case, however, when an industry is nationalized, that its overhead costs are determined by the compensation paid to the dispossessed owners. There can certainly be no particular reason why its overheads should be fixed in this way, because the amount of compensation is itself determined by varying methods, and may be quite arbitrary. If overheads are not necessarily to be related to the compensation paid, then how are they to be fixed? This apparently opens up the possibility that they can be adjusted until 'covering total costs' would amount to the same thing as 'producing until marginal cost equals price'. Average cost could be forced into equality with marginal cost.

This is, of course, a silly suggestion. It inevitably does away with the whole object of covering total costs, and is open to all the grave objections which have been made to the policy of producing until price equals marginal cost, covering the overheads by national taxation. Moreover, if we require that covering overheads should provide experience which helps to decide whether new investment in a new but similar, or imperfect, market is desirable, then it is important that the nationalized industry should start off with overheads which bear some reasonably close relation to the value (in some sense) of the equipment and goodwill which it takes over.

The last consideration mentioned above would appear to give us at least one reason for valuing the overheads of a nationalized industry in a particular manner. It is a commonplace that the historical cost of equipment is irrelevant, and that it is the replacement cost that matters. But the reason for this, and the reason why *all* overheads are not irrelevant, is not always made clear. The reasons are, first, that depreciation should be based on replacement

¹ My *Price of Fuel* is an example of the method I suggest. The matter is further discussed in the preface to that book.

costs and should be covered by price, if the often more or less routine investment of depreciation funds is to be under the direct control of the undertaking itself, and, secondly, that only if capital is valued at replacement cost is the experience gained in covering total costs of greatest value as a guide to making new investment decisions. Is it, however, adequate to say that the overheads should be determined by replacement costs? A. M. Henderson has discussed this question. The problem, as he set it, is to determine how much the industry should pay to the Exchequer after covering its current expenses. This becomes the problem of determining the valuation that is to be set on its capital equipment, since the annual payment will then be determined as the normal yield expected on an investment of this class. To quote

What is relevant is the replacement cost of the equipment, and this should be the basis of valuation. In this way, there is an automatic increase in the amount of the annual payment in periods of high prices and a fall in periods of depression.¹

He went on to say that this basic replacement-cost figure needs to be modified, because some of the equipment would not be replaced if the decision had to be taken anew. He wrote. 'In this case, we require the highest price we would be willing to pay to replace this equipment.'¹ Only in this case? Suppose that we would be willing to pay more than replacement cost? If windfall losses are to be subtracted, presumably windfall gains should be added. He continued

The sum we are seeking is the current value of the equipment such that, if a normal return is paid, then the taxpayers will not be subsidizing consumers of the product of the industry, though they will bear the capital losses from investment which has turned out to be unjustified.²

This appears to be the sum we are seeking, because, he suggests, we really want to ask ourselves what we would be willing to pay to replace the equipment. It does not seem clear why this is the question we should ask ourselves unless, either for reasons of income distribution or for reasons such as Professor Lewis's, we think that taxpayers ought to bear the losses of mistaken investment, and ought not to have to subsidize consumers. In any case capital valuation on the basis of a normal return does not seem to

¹ Henderson, *RES*, p. 21

² *Ibid.*

be a modification of the replacement-cost principle. It seems to be a quite different and alternative basis of valuation.

Suppose that, in accordance with this scheme, the capital value is, on takeover, determined by multiplying the current profits by the number of years purchase corresponding to the yield expected by investors on an investment of the same class. The annual payment is thus apparently equal to the profits before nationalization, and the pricing policy remains broadly unchanged so long as operating costs remain the same. Alternatively, if no account is taken of risk, and the interest charge is determined by gilt-edged rates, then the annual payment would be somewhat less than the pre-nationalization profits, and price could be slightly reduced.

A new investment after nationalization will then be made if the industry convinces the Exchequer that it will thereby be able to increase its annual payment in proportion (assuming that the normal yield does not change), given that it continues to charge the same price.¹ If the investment is made, and the expected yield does not result, then a higher price must not be charged. The implication is that the new capital must be revalued in accordance with the actual yield of the new investment, otherwise, the taxpayers would not be bearing the loss.² The annual payment of the industry would thus be adjusted up or down according as new investment was successful or the reverse. This would mean that a mistaken investment would appear to be immediately condoned. As far as the industry and the public was concerned, its mistakes would be covered up as soon as made—and likewise its successes. This might not be a good thing.

Admittedly it does not follow from the mistake of, say, erecting an unnecessary factory that one should make the further mistake of not using the factory in what might be, in theory, in the short run, the best manner. On the other hand, if overheads are always adjusted so that the average cost of this factory is covered, then there remains no obvious indication that the industry is now too

¹ Cf Henderson, *RES*, p. 23.

² Apart from this revaluation, the annual payment scheme seems to come to the same as that advocated by E. F. M. Durbun, 'Economic Calculus in a Planned Economy', *EJ*, Dec. 1936, where he says 'Make the largest output you can consistent with earning normal profit on the cost of replacing your plant. When through a change in market conditions you cannot earn normal profit at all, then earn the biggest profit you can.' This instruction is subject to the same objections as we make to the annual payments scheme.

large. If the annual payment was not adjusted then the industry might use its monopoly power in order to meet its obligations. The taxpayer would not then pay the penalty of the mistake, but at least the consequent increase of excess capacity would indicate that the industry ought to contract. Equally if the new investment was particularly successful, a resultant increase in overhead charges might tend to hide the fact that further expansion was desirable. Again, if demand increased or decreased, there would be similar reasons against immediately adjusting the annual payment upwards or downwards. There are thus arguments against adjusting overhead charges, more often than very occasionally, to what the industry can, in fact, pay when operating at or near full capacity.

Suppose, however, that a new investment failed to give the expected yield, not so much because costs or demand were miscalculated, but because there was a general fall in prices. There is then a strong case for reducing the annual payment. This would automatically occur if the equipment was revalued at replacement cost. Similarly, if there was a general rise in prices, not only the depreciation but also the interest component of the annual payment should rise. The failure or success of an investment which is the result of a change in the general level of prices should not be attributed to the foolishness or wisdom of the managers, and there is no reason why such gains or losses should not be hidden. Furthermore, if the annual payment was not thus revised, output would be expanded or contracted as a result of a purely historical accident—the accident of whether the equipment was purchased when prices were relatively high or low—and this, at least, cannot be a good reason for a change in output policy.

This somewhat clumsy idea of a fluctuating annual payment only results from the fact that we have presumed that the managers would be instructed to adopt a price which would enable them to pay the annual payment. In fact, if interest on the capital value was charged at private industrial rates, we would simply have been discussing how we should vary the annual payment so that the managers, in taking it as their guiding star, would in fact maximize profits, or minimize losses, in the same way as they did under private enterprise.

We do not want to imply that, when an industry is nationalized, the equipment should be valued at replacement cost. On the

contrary, when the new management takes over, there is no point in burdening them, even on paper, with the results of the past mistakes of others, nor indeed in valuing the equipment in such a way that they can pay an exceptional return from scratch. The initial valuation should certainly be made on a normal yield basis, and, unless there are special reasons (as there may often be) for supposing that the public has seriously underestimated or overestimated the prospective yield, or the risk involved, the Stock Exchange valuation may be taken (Although it is, of course, inconsistent to take the Stock Exchange valuation, and then require the industry to pay only gilt-edged rates on the value of the capital thus determined)

The trend of the discussion will probably have disappointed some readers, since the proposal so far is simply that there should be a capital reorganization at the time of take-over, and that thereafter the public monopoly should, as far as short-term output is concerned, continue to behave in the same way as the private monopoly would have done (although within the framework of covering total costs it may of course try to produce the 'best' output). The only difference is that the interest charge would be reduced if gilt-edged rates of interest were now charged.

A. M. Henderson suggested, however, that the amount of the annual payment might be modified for various reasons; thus it might have its annual payment lowered to make price more nearly equal to marginal cost, if the excess of average over marginal cost was unduly high, or, if it justified general encouragement because of defence requirements, indirect social benefits, or external economies. Alternatively, it might have its annual payment raised for the opposite kind of reason. He added:

It may seem pointless to start with a more or less precise figure and then to submit it to a host of adjustments of so vague a nature. The justification is simply that in many, if not most, industries there will be no very convincing case for making any of them.¹

We certainly agree with this. But, supposing that it was felt that some interference with monopolistic pricing *was* justified, we doubt whether this interference would best be made by means of an adjustment of the annual payment which the industry would be expected to make.

Let us suppose that the annual payment is reduced, so that the

¹ R.E.S., p. 22

industry is not, in effect, expected to cover its total costs, as we have tried to define them earlier. New investment would then be undertaken if it was expected that charging the same price for the product would permit the annual payment to be increased by sufficient to cover interest and amortization on the full cost of the new equipment, although the corresponding full interest charge would not necessarily be exacted.¹ It is clear that this involves a more exacting criterion for new investment than does profitability. The criterion is now profitability given a certain price less than monopoly price. So long as the reduction of the annual payment is small, we cannot claim this as a disadvantage, since, as we saw earlier, profitability might err on either side of the 'ideal'. If the reduction in the annual payment was, however, fairly large, an undue restriction of investment might result.

Further, if the annual payment was not increased by the full interest and amortization charge on the new equipment—which, if the investment were successful, could have been paid—then the price charged must be lowered. In that case the ratio of price to average cost would be changed. Evidently, if it is only 'correct' to make new investments which, at the same price as before, can cover their total costs, then, if the same average-cost:price ratio is to be retained, the industry must be required to pay the full interest charge. On the other hand, if the annual payment was, in the first instance, modified for general social reasons (for instance, if it was increased for distilleries), then we should presumably require that more, or less, than a normal return must be made on the new capital. If the annual payment is to be modified for many different reasons, it is surely wrong to suggest a single investment criterion, to wit, 'make an investment if, on the basis of the old price, full costs can be covered'. If, for general social reasons, we wished to encourage or discourage an industry, we should correspondingly not want it to be able to cover total costs, or be more than able to cover them.

We thus see that there would be a number of disadvantages if the annual payment was adjusted for some of the reasons specified. First, it would make it more difficult to find a general investment criterion, and to judge the investment performance of the industry, and this, in turn, makes the problem of deciding on the right investments more difficult. Secondly, it would be clumsy. Too

¹ Ibid, p 23

many reasons have been advanced for altering it; a change in the price level, a particularly successful or unsuccessful new investment; external economies and diseconomies; general social reasons, and so on. Thirdly, if it was correct to alter it for such reasons as A M Henderson put forward, there would be a temptation to alter it for more arbitrary non-economic reasons. Whether or not to alter it for reasons of general social advantage is a matter of judgement about which there could be considerable difference of opinion (indirect social benefits, external economies, &c, cannot be objectively determined). Decisions on such matters might, in a democratic community, well be aired in public, and therefore should not be lost to view as they would tend to be if incorporated in a change in the annual payment, which would also have to fluctuate with changes in the general level of prices, and with the success or failure of new investments

A M Henderson also suggested that, in addition to being able to vary the annual payment, the government may also give specific subsidies or levy special taxes.¹ Yet interferences on the ground of the price: marginal-cost ratio, defence requirements, and indirect social benefits, are apparently all to be dealt with by a variation of the annual payment. Indirect taxation is also included. Thus it is said 'the need for a contribution from indirect taxation is a reason for raising the annual payment in all nationalized industries'¹ Even unintentional subsidization, owing to the failure of an investment plan, is dealt with by varying the annual payment. What, then, is there left to be dealt with by means of specific taxes or subsidies? The important point about subsidies and taxes is that they are abnormal payments, they conflict with the established norm of covering total costs (however defined) Being abnormal, they attract attention. Therefore I would wish to rank as subsidies or taxes payments which should be subject to public discussion. Among these I would include payments (or modifications of payments) to or from industries for reasons of general social advantage, external economies, defence, &c—and would even prefer to include among them any payment for the purpose of approximating to the 'optimum' conditions, because I believe that common sense, backed by public opinion, may often be a better guide than pure welfare theory in deciding whether a change would satisfy our criterion of desirability.

¹ *R.E.S.*, p. 23.

But, even supposing that any special encouragement or discouragement of an industry is dealt with by means of taxation or subsidization, there are still disadvantages in a system under which output is determined by the obligation to balance after a certain annual payment is met. Suppose that there is an increase in the demand for the product, and that output cannot be quickly expanded. The same price must be charged if the industry is not to make too much profit. This would involve queueing or rationing or an increase in imports, which is certainly not, as a general rule, ideal. It would be wrong to suggest that the taxpayer ought never to benefit by the increase in demand. Certainly theory suggests that the price should be raised, and the exceptional profit made. Only then is the product 'ideally' distributed (we have seen in Chapter IX that the 'optimum' exchange conditions are the least shaky of all the 'optimum' conditions, and that their fulfilment is presupposed by the 'optimum' production conditions). This argument admittedly may not apply in some cases, where income-distribution effects are important and cannot be compensated, but it surely applies in others. Another disadvantage of the annual payment method is that it 'permits' losses (if the industry cannot avoid making a loss), but never permits exceptional profits, since these can always be avoided. There may thus be a tendency for general taxation to increase. Again, it is likely to be more difficult to aim at making a definite amount of profit from year to year than it is to aim at maximizing profit in the long run. This remains just as true if the instruction is to break even, taking the good years with the bad. All business experience is built up on the profit-maximizing basis. Also, if too much profit is to be avoided, and there happens to be a tendency to make too much, then there may be little incentive to avoid waste. The balance might be struck by inefficiency, rather than by increasing output.

Some of the above disadvantages might be overcome if the instruction to break even was overridden by the instruction that the industry should always make as much profit as it could, consistent with operating at full practical capacity. The abnormal profits, if any, should be reduced only by increased output as and when new investment made that possible. This raises the question of what should happen to any exceptional profits made. First, of course, they would be subject to profits and income-tax. The residue could be retained if required to finance an agreed investment programme.

anything left should probably be paid to the Treasury. It may be argued that, for political reasons, exceptional profits should not be made in a nationalized industry. They might, for instance, incite demands for wage increases. This difficulty might be met by instituting a suitable purchase-tax if and when an industry began to earn a quasi-rent on its equipment. The purchase-tax would be removed when output could be expanded sufficiently to meet the excess demand.¹

Thus it is suggested that the annual payment be altered only for two reasons, either (a) because the general price-level, and therefore replacement costs, had changed considerably, or (b) for the purpose of writing off mistaken investment. These capital reorganizations would be made only occasionally, when the need for them had become obvious. Secondly, it is suggested that the instruction to break even be overridden by the instruction that as much profit as is consistent with full capacity should always be made. If the average cost of marginal firms is more than covered, then output should be expanded through new investment. Thirdly, if it is thought that interference is definitely required in order to make price more nearly equal to marginal cost, or for general social or military reasons, then this should be effected by means of taxation or subsidization.

New investment should, in general, be undertaken if it is expected that its full costs can be covered, assuming that the same rate of taxation or subsidization (if any) remains. This gives us the usual profitability criterion for investment, subject to the general encouragement or discouragement implicit in the taxation or subsidization of the industry. Only if the taxation or subsidization is for the purpose of making price nearer to marginal cost do we tend to lose sight of the normal profitability criterion of investment. We anticipate, however, that interference on the grounds of reducing price to make it nearer to marginal cost would seldom, if ever, be obviously necessary, except possibly in the case of fairly fully developed industries where investment was unimportant, and probably not often even in this latter case, since the greater output would usually be obtained by discriminatory pricing, or by local

¹ In some cases a permanent rent might be earned on intra-marginal units, in which case the Treasury should receive the abnormal profit corresponding to this rent. In some cases, however, such rents will have been capitalized when the industry was taken over, and would therefore be included in the normal annual payment.

taxation; and where it could not be so obtained, it would seldom, if ever, appear to be desirable.

Finally, we would add that control by price-fixing cannot be eliminated as a possibility. In abnormal times, as when a particularly severe shortage develops, or when there is considerable inflationary pressure, then rationing and price-fixing may be required to ensure equitable distribution, or to prevent a wage inflation by holding down the cost of living.

Some disadvantages still remain. Nothing in the above instructions serves to prevent an industry, which is faced with a chronic decline of demand, from exerting its monopoly power¹ to meet the annual payment in spite of the decline in demand. Whereas, by the suggested overriding instruction, we have introduced some element of price flexibility when demand increases, no corresponding flexibility in a downward direction is in evidence. Also there is nothing to prevent the industry from using one of its products to subsidize another. There is also the already mentioned possibility that the instruction to break even may result in inefficiency, if and when it is very easy to break even.

The above kind of consideration raises the question of whether it is not possible to introduce into public enterprise some element of competition. In other words, cannot profit-maximization sometimes serve in its traditional capacity as an output regulator? Thus it has been suggested that, for some industries, it would be better to have several boards which would compete against each other, rather than one central board. There would, however, be disadvantages in not having a central board for an industry. In any industry there are probably certain economies of 'co-ordination', such as central research and the dissemination of information. Perhaps more important in some people's view is the fact that the industry would become more difficult to control if there was no single central organization responsible to the Minister. In normal times this would not matter very much, and might be an advan-

¹ A public monopoly might have much more monopoly power than a private monopoly. Whereas the ratio of price to marginal cost in the latter is seldom likely to be significantly different from the average 'degree of monopoly', this might not be true of a public monopoly. Private enterprise, however monopolistic, is always limited by the threat of potential competition, or public control. There is little evidence that the text-book short-run 'exploitation' behaviour is a real phenomenon. On the other hand, the lack of the above threats might, in public enterprise, be offset by the increased influence of parliamentary, or public, opinion.

tage, but if we have to cater for the possibility of 'abnormality' then it might certainly be a disadvantage

But, in any case, the same presumed advantages, which would result from having an industry split up into a number of competing boards, could be rather better obtained with a central board, if that board adopted a suitable policy. Thus, in a multi-plant industry, the individual plants, or mines, could be instructed each individually to maximize its profits. If the product were homogeneous, or if there were a small number of homogeneous products, then each plant would behave as if in perfect competition. Oligopolistic competition or restraints could be discouraged by the central board. In such a case the board would not be maximizing its profits. It would not control the price, and the individual managers would, in fact, be making price equal to marginal cost. But in an industry with rising costs, if the above policy was applied, losses would not result, indeed, considerable profits might sometimes be made. In that case most of the objections to marginal-cost pricing vanish, we would have the competitive industry of pure theory. In some cases this would seem to be the best solution.

We believe that much the same solution could be applied to many imperfectly competitive industries (we beg the question of the definition of such an industry). There is no longer, of course, a single price, but many prices and many products. The board would not itself be instructed to maximize profits, because that would, in the end, mean fewer and fewer commodities, and larger and larger plants. Standardization may be a good thing in some cases, and the central board would have to decide when it should be imposed, but the decision to standardize as much as possible should not be forced on it by the instruction to maximize profits. The individual plants, or firms, would act without day to day interference as under private enterprise. As we shall argue in a later chapter, welfare theory cannot tell us that resources are wrongly distributed within an industry of this kind, and there would be nothing to be gained, and possibly much to lose, by attempting to make each plant produce some abstractly defined 'ideal' output. Such a solution does not imply that there are no possible advantages to be gained from nationalization in such a case. Entry would be 'free', that is, abnormal profits would be taken as a sign that more plants and more products, or possibly more plants and the same number of products, are needed. Thus demand might become more elastic for

each plant. Purists could then take some comfort from the fact that price would be nearer to short-run marginal cost than it is likely to be under private enterprise, if entry is in any way restricted. The central board could also institute research, spread useful information on productive methods rapidly, and discourage any tendency to oligopolistic agreement

In both the above cases the central board would be responsible for investment policy, although subject to ministerial control. In general it would seek to expand the industry when marginal plants were more than covering their average costs, and to contract it in the opposite case. It would, in fact, have the guidance of the normal profitability criterion as to when investment or disinvestment was required, and in the imperfect competition case it would also have the guidance of profitability in deciding which lines of production should be developed, and which restricted.

The above kind of scheme, whereby the central board of the industry exists in order to ensure that competition acts in the way in which it is supposed to act, has many advantages. As far as managers are concerned their instructions are simple and stimulating, and what they are used to. The board has the best practical guide for its investment policy.¹ Queueing is avoided when demand is in excess of supply, and, on the other hand, price reductions are semi-automatic when demand falls off. There is thus more flexibility than when an annual payment regulates output (the annual payment would remain as a datum-line of normal profitability for the industry, but it would not determine output).

But the above competitive solution,² which does away with the necessity of keeping a close watch on the annual payment, since that no longer determines output, is certainly not a universal panacea, although it might be widely applicable. If, for instance, the industry consisted mainly of a few large firms with falling costs, then the instruction to maximize profits would not be determinate (some element of indeterminacy would no doubt always be present

¹ We showed in Ch. X not only that profitability is the only practical and generally applicable guide, but also that it cannot, in the case of the imperfectly competitive industry without significant indivisibilities, be shown to be, even in theory, wrong.

² A very similar solution has been proposed by Mr. C. A. R. Crosland in his article, 'Prices and Costs in Nationalized Undertakings', *OEP*, *NS*, no. 3, Jan. 1950. I am indebted to the author for several of the suggestions embodied in this chapter.

in any imperfectly competitive industry—but, in many cases, it would not be great enough to matter) Each firm would require to know what assumptions it should make about the behaviour of other firms. If each acted independently, treating price as a parameter, heavy losses might be made. The competitive solution would then be open to all the objections urged against marginal-cost pricing, and more. The central board or the government would have to control the price. Even if this were done the individual firms could not be allowed to maximize profits on the basis of the given price, because they would then make marginal cost equal to price,¹ and the board would find that the price, at which the resultant output could be sold, would involve it in heavy losses. Again we have all the disadvantages of the marginalist solution. Therefore unless total costs can be covered by discrimination, resort must be had to average cost pricing. In which case the board must, in some way, control the output of the individual plants, so that overheads are covered. We are then back at the annual payment method of output determination.

In the above paragraphs some emphasis has been placed on nationalized industries making profits. The larger the nationalized sector the more important it becomes that this sector taken as a whole should make profits (and/or that some of its products should be taxed). The present nationalized sector is already large enough for it to be probable that the only general convention we have—that each industry should try to break even—is causing serious damage to the economy. A very large part of the savings of the community comes nowadays from corporations. Indeed private corporations save more than they invest, in addition to which they make profits and pay tax on them, which is also a contribution to

¹ To let managers maximize profits on the basis of a fixed price, adjusted by the central board until supply equals demand, would be the only practical method of getting marginal-cost pricing. That price is equal to marginal cost is, after all, a deduction from profit-maximization with a constant price—and whenever these postulates are realized, price is *by definition* equal to marginal cost. This deduction, as is usual in economics, cannot be verified, because marginal cost is not precisely identifiable (including, as it must, user cost). It was a mistake of the advocates of the extreme decentralized marginalist solution to take the condition, 'let price equal marginal cost', which is the fundamental 'welfare' theorem implicit in the theory of pure competition, and attempt to apply it directly. This cannot be done for the reason that marginal cost is not a perfectly objective magnitude. The only possible way of getting marginal-cost pricing is by aping the postulates of pure competition theory, on the assumption that managers, when told to do so, do in fact maximize profits.

governmental savings. The nationalized industries do not save at all; in fact they probably dissave although not supposed to do so. At the same time they are very heavy investors

Moreover, most goods produced in the private sector are indirectly taxed. They thus make a contribution towards financing investment and government expenditure via indirect taxation, via contributing to the profit and income-tax of corporations, and via corporation saving. In contrast the products of the nationalized industries probably make a negative contribution.

This may seem a far cry from welfare economics; but there is in fact an intimate connexion. The large volume of taxation required to be raised cannot be raised in any very ideal way. But it will almost certainly be raised in a worse way than it need be if a range of products is automatically made exempt from taxation, however good *prima facie* candidates they might be. Moreover the total volume of taxation required will be pound for pound higher the smaller the contribution of these same goods to non-governmental savings. This is not to say that all nationalized industries should be expected to make some contribution to the finance of investment, or government expenditure. But where it can be seen that a particular industry could make good profits without any apparent 'distortion' of output, then it seems manifestly wrong that it should throw the whole burden of finding the savings required for its own investment on to the government or the rest of the economy. Where, finally, an approach to the best pricing policy would automatically result in large profits (as in the case of the National Coal Board) which would make possible the reduction of harmful taxation on other goods, the view that nationalized industries should *at least* cover costs becomes very much of an understatement.

The discussion we have had in this chapter of some of the possible methods of running public concerns is only, of course, a sketch drawn mainly, though not entirely, from the economic point of view. However, it suffices, I think, to show that there is not any one best method. From the economic angle we have to conclude that the best method depends on the nature of the product or products and on the nature of the industry. Just as the latter part of this chapter showed that there is no one best method of arriving at a certain output, so the first part showed that there is no one way of determining what the best output is. The best output,

and the best method of arriving at it, are not indeed separable problems.

We can only decide what is the best thing to do in each particular case taking everything into consideration. The answer will be different in each case. And it will also depend on who decides, the problem is not a scientific one, about which we can expect to obtain universal, or almost universal, agreement. The decision is influenced by many different considerations of different kinds which cannot be weighed in any very objective way.

This whole chapter, and especially the latter part of it, has been somewhat of a digression from our main theme. But it may have been useful to stray away from pure theory, and see what the theory looks like when one tries to apply it. One cannot very well appreciate its usefulness, or lack of it, unless one watches it performing.

CHAPTER XII

THE VALUATION OF THE NATIONAL INCOME

IN Chapter II we used the condition $\sum p_2 q_2 \geq \sum p_2 q_1$ (the q 's referring to quantities bought by some individual) as a sufficient criterion for saying that the individual chose situation II rather than situation I. Similarly, if $\sum p_1 q_1 \geq \sum p_1 q_2$ we said that he chose situation I rather than II. If these two conditions both held, a contradiction arose.

We are now going to examine the same conditions when the q 's refer not to quantities purchased by a single individual, but to the total quantities bought by a group of individuals. Where the group is relevant we will use capitals (P 's and Q 's) and where the individual is relevant small letters (p 's and q 's). By a group of individuals we do not mean a collective. A collective can be said to choose, and can therefore be treated as an economic individual, although it may be composed of many actual individuals. By definition, then, a group of individuals cannot be said to choose. The recipients of the national income are assumed to form a group but not a collective, and we shall, in general, assume that the Q 's of the formula refer to the total quantities of different kinds of goods comprising the (real) national income, and that the P 's refer to the market-prices of these goods.¹ When speaking of welfare, we use the same criterion for changes in an individual's welfare as we have used throughout ('on a higher behaviour line', or, if this cannot be known, the index-number criteria $\sum p_2 q_2 \geq \sum p_2 q_1$, and $\sum p_1 q_1 < \sum p_1 q_2$), and the same value judgements as before are presupposed.

From the above paragraph it follows that no obvious meaning in terms of choice attaches to $\sum P_2 Q_2 \geq \sum P_2 Q_1$ or $\sum P_1 Q_1 < \sum P_1 Q_2$. The first condition is shorthand for 'the money value of the real national income in period II is not less than the real income of period I valued at period II prices'. The second condition is shorthand for 'the money value of the real national income in period I is less than the real income of period II valued at period I prices'. When we are concerned with an 'economic man', $\sum p_2 q_2 \geq \sum p_2 q_1$

¹ Let us, for the moment, assume that all goods comprising the national income are consumed by individuals and have a market-price.

implied $\sum p_1 q_1 < \sum p_1 q_2$, this followed from the definition of consistency. But now that we are dealing with groups, $\sum P_2 Q_2 \geq \sum P_2 Q_1$ does not imply $\sum P_1 Q_1 < \sum P_1 Q_2$. It can easily be seen that the two sentences above, for which $\sum P_2 Q_2 \geq \sum P_2 Q_1$ and $\sum P_1 Q_1 < \sum P_1 Q_2$ are shorthand, are not contradictory. Even if every individual comprising the group was perfectly consistent, so that for every individual $\sum p_2 q_2 \geq \sum p_2 q_1$ implied $\sum p_1 q_1 < \sum p_1 q_2$, it would still not follow that we could not have both $\sum P_2 Q_2 \geq \sum P_2 Q_1$ and $\sum P_1 Q_1 \geq \sum P_1 Q_2$, when we summed the budgets of all the individuals.

Now it is usually thought that $\sum P_2 Q_2 \geq \sum P_2 Q_1$ contradicts $\sum P_1 Q_1 \geq \sum P_1 Q_2$, but this is only because these index numbers have been given meanings or definitions (apart from the obvious meanings given above) which make them contradictory. It is our purpose to examine the suggested definitions. Professor Hicks proposed such a definition in the following passage.

Thus, what the condition $\sum P_2 Q_2 > \sum P_1 Q_1$ tells us is that there is some redistribution of the Q_1 s which would make every member of the group less well off than he actually is in the II situation. For, if the corresponding inequality were to hold for every individual separately, it would hold for the group as a whole.

As compared with this particular distribution, every other distribution of the Q_1 s would make some people better off and some worse off. Consequently, if there is one distribution of the Q_1 s in which every member of the group is worse off than he actually is in the II situation there can be no distribution in which everyone is better off, or even as well off. Thus, if we start from any actual distribution of wealth in the I situation, what the condition $\sum P_2 Q_2 > \sum P_1 Q_1$ tells us is that it is impossible to reach, by redistribution, a position in which everyone is as well off as he is in the II situation.

This would seem to be quite acceptable as a definition of increase in real social income.¹

¹ J. R. Hicks, 'The Valuation of the Social Income', *Economica*, May 1940. I have substituted capitals for the sake of uniformity. It should also be noted that, although the definiendum is here 'real social income', Professor Hicks seems to assume in the same article that this is equivalent to 'welfare'. Finally it should be noted that it must be the case that the condition shows that there is a distribution of the Q_1 s, in which the optimum exchange conditions are satisfied, which makes every member of the group worse off than he is in the II situation. But the condition does in fact show this. See P. A. Samuelson, 'Evaluation of Real National Income', *O.E.P.*, Jan. 1950, p. 8, n. 1 also C. M. Kennedy, 'An Alternative Proof of a Theorem in Welfare Economics', *O.E.P.*, Feb. 1954.

Now, for some reason, it is supposed that a good definition of 'real social income' must pass the base-reversal test. In other words, if $\sum P_2 Q_2 \geq \sum P_2 Q_1$ entails 'real social income is higher in II than I', then $\sum P_1 Q_1 < \sum P_1 Q_2$ must entail 'real social income is lower in I than II'. It should be noted that this 'must' is a matter of elegance and convenience. There is no logical or philosophical reason why such a definition should pass the base-reversal test, because, as we have seen, the meaning of $\sum P_2 Q_2 \geq \sum P_2 Q_1$, which is implied by the conventional usage of the symbols, does not contradict the similar meaning of $\sum P_1 Q_1 \geq \sum P_1 Q_2$. When dealing with groups, there is no logical reason why we should not accept $\sum P_2 Q_2 \geq \sum P_2 Q_1$ as a definition of increased social income, and disregard the fact that $\sum P_1 Q_1$ may be greater than $\sum P_1 Q_2$.

Professor Kuznets has, however, criticized this Hicksian definition, saying that it must pass the base-reversal test.¹ Now it is evident that, given the formula $\sum P_2 Q_2 \geq \sum P_2 Q_1$, it does not matter how the goods were distributed in the first period. One can imagine the Q_1 s were distributed in any way one likes in the first period. With each such different distribution there would be a different set of prices (P_1 s), but these do not enter into the formula. Further, no distribution in the first period is logically inconsistent with our having arrived at the actual distribution and prices of the second period. This enabled Professor Hicks to say that $\sum P_2 Q_2 \geq \sum P_2 Q_1$ proves that there could have been some distribution in the first period such that, if we had still arrived at the actual position of period II, the formula $\sum p_2 q_2 \geq \sum p_2 q_1$ would have held for every individual. Thus $\sum P_2 Q_2 \geq \sum P_2 Q_1$ shows that, given the total quantities of the first period, the progress of history could conceivably have been such that every individual would now be better off. This is the meaning of Professor Hicks's definition of an increase in real social income.

What, then, is the correct base-reversal of this Hicksian definition? Using a formula based on the prices of the first year, we must see that the analogous argument holds. Thus we must see that it is possible to redistribute the Q_2 s in the formula $\sum P_1 Q_1 < \sum P_1 Q_2$ so that the inequality will hold for every individual. Since the P_2 s do not appear in the formula, it is obvious that this is the case. In other words, it is possible to distribute the goods of the second

¹ S. Kuznets, 'On the Valuation of Social Income—Reflections on Professor Hicks's article', p. 4, *Economica*, Feb. and May 1948.

period in such a way that each individual's first period income would have been insufficient to buy what he could thus have in the second period, if goods were suitably redistributed. Thus if $\sum P_1 Q_1 < \sum P_1 Q_2$ the base-reversal test is satisfied, and Professor Kuznets's criticism is met

But Professor Kuznets wrote

But suppose we reverse the requirement, and ask whether it is impossible to make *everyone* as well off as in situation I by any redistribution of the actual quantities acquired in situation II. If it is impossible, then real income in I is greater than in II ¹

We now see that if $\sum P_1 Q_1 < \sum P_1 Q_2$, then it is always possible, by redistributing the quantities of the second period, to make $\sum p_1 q_1 < \sum p_1 q_2$ for every individual. But, unfortunately, this is insufficient to show that everyone could be better off in the second period. For that, $\sum p_2 q_2 \geq \sum p_2 q_1$ must hold for every individual ($\sum p_2 q_2 \geq \sum p_2 q_1$ implies $\sum p_1 q_1 < \sum p_1 q_2$, but the reverse does not hold true). What Professor Kuznets had in mind in suggesting that Professor Hicks's definition did not pass the base-reversal test was that $\sum P_2 Q_2 \geq \sum P_2 Q_1$ does not prove that $\sum p_2 q_2 \geq \sum p_2 q_1$ could be made to hold for every individual, by redistributing the quantities of the second period. Thus he produces an example of two classes, rich and poor, who consume respectively luxuries and necessities, and argues that even if $\sum P_2 Q_2 \geq \sum P_2 Q_1$, then we cannot necessarily make both rich and poor better off unless luxuries can be substituted for necessities ¹

This is perfectly true, but irrelevant to Professor Hicks's original definition.² Professor Kuznets goes on to say

If we are to determine unequivocally an increase in welfare in situation II over situation I, we must assume not only a constancy of wants in the sense of a constancy of each individual's appraisal of different goods but also that either (a) all goods can be substituted for one another in the full range, or (b) the structure of the goods aggregate in the two situations is such that no specific good, to the extent that it cannot be replaced by another, is reduced in output ¹

Now if all goods are merely, in some degree, substitutes, the fulfilment of either (a) or (b) will only ensure that it cannot be proved

¹ Loc cit, p 4

² Professor Hicks in a comment on Professor Kuznets's article implicitly abandons his former criterion, and agrees with Professor Kuznets's criticisms ('The Valuation of the Social Income—A Comment on Professor Kuznets's reflections', *Economica*, Aug. 1948).

to be impossible, in the second period, to make $\sum p_2 q_2 \geq \sum p_2 q_1$ for every individual. If it is to be proved possible to make every individual better off, condition (a) should read 'all goods are perfect substitutes'. But if all goods are perfect substitutes (a) is irrelevant, and condition (b) should read simply 'no good is reduced in output'. The larger the inequality $\sum P_2 Q_2 > \sum P_2 Q_1$ the less substitutable must goods be for it to be possible, in the second period, to make $\sum p_2 q_2 > \sum p_2 q_1$ for everyone. But the definition is not supposed to depend on the magnitude of the inequality. However small it is, indeed even if $\sum P_2 Q_2 = \sum P_2 Q_1$, 'real social income' or 'welfare' is said to have increased. It does not require any proof to see that $\sum P_2 Q_2 = \sum P_2 Q_1$ does not demonstrate the possibility of making $\sum p_2 q_2 \geq \sum p_2 q_1$ for every individual, unless it is true that the output of no good has decreased.

Therefore if we are required to prove that everyone could be made better off, before we can conclude that welfare or real social income has increased, we could never say that welfare or real social income had increased, because it would never happen that the output of no good was less than before. Remembering the value premises we require in order to speak of an increase in welfare, it would also be necessary to add that the distribution of real income must not have changed for the worse. It is evident that such a definition is useless.

Let us return to the original Hicksian definition. Professor Hicks proposed, in effect, that we can say welfare, or real social income, has increased over an earlier period if there could have been some distribution of the goods produced in that earlier period which would make every individual better off now as compared with then, in the sense of being now able to choose that earlier *pretended* position if he wanted. Thus, by this definition, we have to say the welfare of society has increased, when the poor are poorer, and even though it might be impossible to restore them to their former position without making the rich worse off in their turn. They have only the consolation that there might have been at the earlier period a distribution which would have made them, and everyone else, worse off than at present. I don't think many people would on this account want to say that welfare, or real social income, had increased.

Nevertheless, this Hicksian definition leads to the correct solution. Let us recall the sufficient criterion, which we laid down in

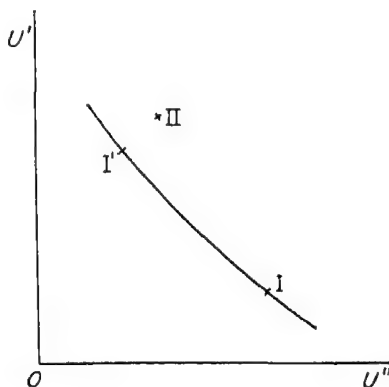
Chapter VI, for an increase in welfare. (a) the income distribution of the second position must be not less favourable than that of the initial position, and (b) it must not be possible to reach the second position merely by redistributing money. Now Professor Hicks showed, in the above quotation, that no redistribution of the quantities of the first position could have made $\sum p_2 q_2 < \sum p_2 q_1$ hold for every individual now, assuming that the actual second position is unaltered by the earlier redistribution. It shows, in fact, that, if the two positions could have been put to the vote, those who stood to lose by the move could not profitably have bribed those who stood to gain to vote against it. This follows because if $\sum p_2 q_2$ remained equal to, or greater than, $\sum p_2 q_1$ for *any* individual, then that individual would not have been successfully bribed. $\sum P_2 Q_2 \geq \sum P_2 Q_1$ shows, in short, that the Scitovsky criterion is satisfied. Professor Hicks had, in fact, abandoned, in his 1940 article, the Kaldor-Hicks criterion, and adopted the later-defined Scitovsky criterion. As soon as we introduce a value judgement about income distribution it thus ceases to matter whether the gainers could overcompensate the losers or not—it ceases to matter whether $\sum p_2 q_2 > \sum p_2 q_1$ could be made to hold for every individual in the second period. Therefore we can conclude that welfare in period II is greater than in period I if $\sum P_2 Q_2 \geq \sum P_2 Q_1$ and if the distribution of real income is no worse in the second period.¹

This criterion is a welfare criterion, but not a criterion for a desirable change (see Chapter VI, p. 111). The reason why it is only the former is that we have shown only that the goods actually produced in the first situation could not have made everyone as well off as in the second position. We have not shown that some redistribution in the first situation could not have produced a still better position, account being taken of the fact that the pattern of output would have adjusted itself to the redistribution. In terms of the Utility Possibility Diagram (Fig. XII) the curve represents the utility possibilities of the set of goods corresponding to position (I), not the set of factors of production corresponding to position (I). By 'real income' being better distributed at II, we mean that I' is better than I , where the set of goods at I' is the same as at I . $\sum P_2 Q_2 > \sum P_2 Q_1$ proves that II is north-east of I' .

¹ This, however, assumes that the disutility of work has not increased. If a man is just induced to move to an unpleasant area where he produces twice as much, and earns twice as much, the national income increases, but not welfare.

This 'welfare' criterion has been criticized on the grounds of redundancy.¹ It is said that if anyone can say that I' is better than I , then he could equally well have said that II is better than I . Supposing that II is the present position, and I represents a past year, is this the case? Direct inspection of I is impossible, since there are no time machines. Of course, it may still be reasonable to make a judgement directly, eschewing the evidence of index-

FIG XII



numbers, and evidence of the distribution of wealth, by reading novels, social surveys, &c. But perhaps most people would think that quantitative evidence in the form of index-numbers of output or consumption, and figures relating to the distribution of wealth, was of assistance in forming a judgement. Since the former tell one only that I' is south-west of II , it is difficult to believe that our analysis is entirely superfluous.

The above welfare criterion (it is, of course, only a sufficient criterion, and not a definition) must not be subjected to any base-reversal test. We said above that there was no logical reason why the condition $\sum P_1 Q_1 < \sum P_1 Q_2$ should also be required to hold. Just as we found that some changes could be recommended although the gainers could not compensate the losers, so we find that if real income is better distributed, and if $\sum P_2 Q_2 \geq \sum P_2 Q_1$, then the second position is better than the first, even although it is also

¹ C. M. Kennedy, 'The Economic Welfare Function and Dr. Little's Criterion', *R.E.S.* xx (2), no. 52, 1952-3. See also p. 106 above.

the case that $\sum P_1 Q_1 \geq \sum P_1 Q_2$. Similarly the first position is better than the second position if $\sum P_1 Q_1 \geq \sum P_1 Q_2$ and if there has been an unfavourable change in distribution between the two positions, even although $\sum P_2 Q_2 \geq \sum P_2 Q_1$.¹

Now the index-number $\sum P_2 Q_2 / \sum P_2 Q_1$ is arrived at by dividing the uncorrected index-number $\sum P_2 Q_2 / \sum P_1 Q_1$ by the Laspeyre price index-number $\sum P_2 Q_1 / \sum P_1 Q_1$. Thus our analysis indicates the superiority of the Laspeyre price index when it is considered that income distribution has changed in a favourable manner. In fact, only by the use of the Laspeyre index can we say that welfare has increased. Similarly, the index-number $\sum P_1 Q_2 / \sum P_1 Q_1$ may be arrived at by dividing the uncorrected index by the Paasche price index-number $\sum P_2 Q_2 / \sum P_1 Q_2$. Only by using the Paasche index can we say that welfare has decreased. In a democratic community, with universal suffrage, income distribution will normally tend to move in a favourable direction in the eyes of most people. The use of the Laspeyre index is then indicated. Those who believe that, in a capitalist community, income distribution must always be changing unfavourably, however it changes, should always use the Paasche price index.

The above discussion is very formal. We have been assuming that we have exactly the same population of identical men in both periods. In fact, of course, people die, and are born. The longer the interval over which we are making the comparison the worse this difficulty becomes. Also we have been assuming that all individuals are choosers, which is far from being true. Hardly any individual chooses all the goods he consumes, and some choose none of them. But we have seen that people think, to some extent, in terms of averages, or in terms of social groups, and such concepts fulfil rather better than actual individuals the requirement of continuity of choice. In thinking about the welfare of the country, one may be prepared to ignore distribution within social groups which have only a small range of real income distribution.

We have also been assuming that we have had an unchanging 'population' of goods. But if a new good is introduced the formal analysis is upset. If some good, which is available in the second

¹ But it should be noted that a contradiction could still arise if the change in distribution were neutral. In this case one would require both $\sum P_2 Q_2 > \sum P_2 Q_1$ and $\sum P_1 Q_1 < \sum P_1 Q_2$ for position II to be better than position I, and analogously for I to be better than II.

situation, is not available in the first, then we do not require an index-number to tell us that a redistribution of goods could not have put everyone on the same or a higher behaviour line as in the second situation, because the behaviour lines of all those who consume some of the new good are formally incomparable with those of the earlier period. Thus the introduction of a new good formally prevents us from saying that welfare has increased, and, similarly, if a good ceases to be produced, it would prevent us from saying that welfare had decreased. Quality changes also can obviously invalidate the analysis.

Then, of course, we have the fact that no index-number can be perfect. The price index must always be arrived at by sampling. Also, of course, the national-income totals themselves are not perfect. But, even if the index-numbers were perfect, our analysis would not fit the real world very well. We thus reach what is by now a very familiar conclusion. Not only must any change in the distribution of income be judged favourable, but also $\sum P_2 Q_2$ must exceed $\sum P_2 Q_1$ by a good large margin before one can have any confidence in one's conclusion. How large this margin must be is a matter of judgement.

We have said in an earlier chapter that, in practice, welfare conclusions cannot be tested. But the comparison of national-income totals does provide a certain very rough test of the applicability of the welfare analysis. Let us suppose that two people agree to accept the two fundamental value judgements of welfare economics. Let us also suppose that they both agree that income distribution did not change unfavourably between the two periods in question. We may also limit ourselves to the question whether *consumption* rose (we have so far assumed, in discussing national income comparisons, that all goods are consumed by individuals). We will suppose that an index-number of consumption seems to indicate that consumption rose. We ask, need these two people agree that consumption rose? Obviously not, for both can recognize the fact that the real world is not very like the world presupposed by the formal analysis. If one wishes to maintain that consumption has risen, and the other that consumption has fallen, neither can possibly *prove* his case. Nor could he prove it, however perfect the statistical techniques might be. Of course, if the index-number showed a terrific rise, the person who maintained that consumption had fallen would look silly. One might cease to trust his judgement,

but he could never be proved wrong. If, however, the index-number showed only a small rise, it really becomes quite meaningless to say that consumption has either risen or fallen. The extent of the rise which the index-number would have to show before everyone, who agreed on the theoretical value premises required, would also agree on the practical conclusion, is a rough index of the applicability of welfare analysis. This is the case, because the only way of testing welfare analysis is by inviting agreement or disagreement with the conclusions from those who accept the premises.

The reader may be surprised to find that I have treated judgements about consumption in the same way as I treated welfare judgements. In the above paragraph it was implied that the former kind of judgement requires value premises, just as the latter does. We have already seen that the word 'welfare' is an ethical word. But words like 'real income' and 'consumption' are not, of course, ethical words. Nevertheless such a statement as 'the real income of the community decreased between 1939 and 1949' strongly suggests that there was a change for the bad; and similarly if it was said to have increased. I have therefore proposed that the phrases 'increase (decrease) of welfare' and 'increase (decrease) of real income' should both be logically subsequent to a judgement about the desirability or otherwise of any change in the distribution of welfare (or real income). To say 'the real income of the community is greater' is not much different from saying 'the income of the community is really greater', which is again not much different from 'the community is better off'. We have therefore treated 'increase of real income' and 'increase of welfare' as synonymous. Now in the above paragraph changes in consumption, not real income, were discussed. But to say 'Consumption has increased, &c.' suggests almost as strongly as 'Real income has increased, &c.' that something good has happened. If no change in the output of any good occurs, 'real income' has a fairly precise descriptive meaning (although of course any discussion of what should be included in 'real income' is a discussion of values). It simply refers, in a closed community, to the total collection of goods and services sold. Similarly, consumption refers to the aggregate collection of goods and services consumed. But the question whether this collection becomes larger or smaller, when its composition changes, does not admit of any precise, objective, purely descriptive answer. The answer given depends inevitably on the relative importance

attached to the different kinds of goods consumed. For this reason, before it is said that consumption is greater, we require that our criterion for a desirable economic change be satisfied, i.e. the distribution of consumption must not be worse, and it must not be possible that a redistribution of the goods, consumed in the initial situation, should have put every individual in a position with respect to consumption which would be chosen rather than the position actually reached in the second period. If this criterion is satisfied it is concluded that consumption is greater.

Unfortunately, for people to agree on such questions as whether welfare has increased or decreased, it is insufficient that they should agree on the initial value premises required. They know that within wide limits it is still possible to disagree because the theoretical analysis is not perfectly applicable. It is all a matter of judgement where the limits lie, but within these limits, consciously or unconsciously, honestly or dishonestly, one can be led to reach one conclusion, or the other, from ulterior motives. The surface argument may be about how well the welfare analysis fits the real world. The real argument may be about whether a socialist government is a good thing, or not. There is thus the ever-present danger that welfare economics may degenerate into a kind of scholastic tub-thumping.

After this digression, let us return to rather more technical matters, and tie up some loose ends. We have shown that there can be no welfare significance in national-income comparisons unless a value judgement about changes in distribution is presupposed. But statisticians, when they present us with national-income totals, whether valued at current prices or at those of some base year, do not, of course, wish to make any such presupposition. They wish to present such data as will be useful as a basis from which other people can draw inferences about welfare, or changes in consumption or real income, if they wish to do so. They can, however, preserve this neutrality without any difficulty. They can, for instance, say that the total market-value of consumption goods in 1947 was ten per cent greater than the value of the consumption goods of 1939 measured at 1947 prices. What they should not do is to conclude that consumption increased. There is, after all, no such *thing* as consumption, the size of which can be measured. The first of the above two statements is objective and neutral. The second is neither one nor the other. We may at once add that the general practice of statisticians, and that in particular of the com-

plers of the national-income figures, leaves little or nothing to be desired in this respect.

But we have said that statisticians may wish to provide data from which others can draw inferences about real income, real wages, and so on. This raises two questions: first, what prices should be used? and, second, what things should be included in an index which people can use as a guide to welfare? As regards the first question, we have so far assumed that market-prices are used. The formal reason for using market-prices is clear. They are the prices which individuals have to pay, and our theory regards welfare, real income, &c., as a function of, or logical construction from, the welfares or real incomes of 'individuals'. We have, however, pointed out that this theoretical concept can at best only be very roughly applied to a changing population of changing tastes, not all members of which are choosers. Since this is the case, does there remain any good reason for using market-prices, rather than costs, as weights?

At the formal level a precise reason could be given for using market-prices. At the applied level—which is the level we are interested in—only imprecise reasons can be given. It is probably better to use the weights which pure theory suggests, if there is no particular reason for choosing others, since this procedure brings the logic of the comparison more into the open. This is really only a pedagogic reason. Secondly, it is conceivable, though unlikely, that prices and costs would diverge enough to make the market-price comparison more reliable (the sense in which one comparison can be said to be more reliable than another was made clear in our discussion of the problem of testing the applicability of the analysis). Lastly, although the comparison cannot possibly be given a precise meaning in terms of actual individuals, the individual is usually held to be of importance, and the use of market-prices as weights is more consistent with this kind of social philosophy than the use of an index based on factor costs would be. I think that there is thus some slight reason for concluding that, on the whole, an index, which is to serve as a guide to making welfare, or real income, judgements, would be better based on market-prices—although in almost all cases an index based on factor costs would be just as useful.

The second question—What should be included in the 'guide-to-welfare' index?—we have by-passed by assuming an economy in which all goods are consumed by individuals, that is by assum-

ing an economy with no saving, and no collective or government consumption. Let us thus continue to by-pass this question until we have discussed the significance of comparisons of national-income totals in which the goods are weighted by factor costs (including, of course, profits), and not by market-prices.

The factor-cost index is supposed to measure production in some sense. Now the production of an economy consists of a heterogeneous collection of goods of various kinds (each kind of good being itself regarded as homogeneous). There is only one clear and obvious sense in which a heterogeneous collection can be said to be larger, and that is when there is more of one kind of good and no less of any kind. Accepting this, it follows that production can never be said to have increased if the output of any one good has declined. This is exactly analogous to the view that welfare cannot be said to be greater if any individual is harmed, a view which results from the mistaken idea that the welfare of the community is a heterogeneous collection of the welfares of the individuals comprising the community.

Analogous to the Kaldor-Hicks definition of an increase in welfare, we have the view that production can be said to be greater if resources could be rearranged in such a way that the production of every good would be greater. Just as the fulfilment of the Kaldor-Hicks criterion indicated, at best, a potential increase in welfare, so, of course, the change by which the output of every good could be increased can only be correctly and accurately described as a potential increase in production.¹ This may seem unduly pedantic. I hope, however, that I have said enough about the suggestiveness of economic language to show that pedantic accuracy of description is highly desirable, if one wishes to preserve any neutrality towards the facts one tries to describe.

Now if average full costs were equal to marginal costs, the ratios of the weights used in a factor-cost index would be equal to the transformation rates of the goods.² In that case the condition

¹ If all goods are valued at factor cost the same total must be reached as is reached when each factor used is weighted by the amount it is paid. Thus an index which measures potential changes in production must also be a measure of the amount of resources used, assuming that all factors, including entrepreneurship, are included. In other words, potential production is the same thing as production potential.

² Cf. J. Hicks, 'The Valuation of the Social Income', *Economica*, May 1940, pp. 119-20.

$\sum P_2 Q_2 > \sum P_2 Q_1$ would show, for very small changes in production, that, in the second period, more than the goods of the first period could have been produced. In other words, it would show that production potential had increased. Thus, ideally, the factor-cost national-income measure can be said to be a measure of production potential. It should be noted that, given this interpretation, we do have a contradiction if both $\sum P_2 Q_2 > \sum P_2 Q_1$ and $\sum P_1 Q_1 > \sum P_1 Q_2$. It would then be the case that the goods of the second period could have been produced in the first period, but the goods of the first period could also have been produced in the second period. If this is true, we clearly cannot speak of an increase in production potential. Thus, unlike an increase in welfare, an increase in production requires both $\sum P_2 Q_2 > \sum P_2 Q_1$ and $\sum P_1 Q_1 < \sum P_1 Q_2$.

But the above theory of changes in production potential is 'extremely shaky'. To quote Professor Hicks

... It is on this sort of structure that actual index numbers of production are based, but it has to be recognized that it is extremely shaky from a theoretical point of view. Returns are not always constant, prices (ex tax) are not always equal to marginal cost, once these assumptions are dropped the whole argument loses its validity. . . . Some people may be tempted to rush in with the suggestion that a constant degree of market imperfection and constant marginal costs would mend the situation, and is not too bad a hypothesis, but there seem to be crushing objections against this. While there may be some sense in which it is normal for marginal costs to be constant under imperfect competition, that sense can hardly be relevant here, where we are thinking about a whole economy, not a single firm, so that the specificity of factors is of first-rate importance to us. Further, unless we have some way of measuring marginal costs directly, we need to assume not only a constant degree of market imperfection, but the same degree of market imperfection in all industries—and that assumption is hardly tolerable.¹

It should be noticed that, in the previous paragraph, it was stated that this analysis was valid only for small changes in production. But of course index-numbers are applied where more than marginal changes in the output of individual goods must be allowed for. In this event the analysis is valid only if transformation curves are straight lines. This is a far stronger assumption than constant returns to scale, and implies that there is only one factor of production, or that factors are employed in the same proportions for

¹ J. Hicks, 'The Valuation of the Social Income', *ibid*, p. 121.

all outputs. The normal assumption of economic theory is, of course, a diminishing rate of transformation as the output of one good is increased and that of another reduced and therefore we should see what the index-numbers can tell us about production on this assumption

Now, since the transformation curve is concave, $\sum P_2 Q_2 > \sum P_2 Q_1$ does *not* tell us that the goods represented by the point Q_1 could have been produced with the factors and techniques of the second situation. Similarly $\sum P_1 Q_1 > \sum P_1 Q_2$ tells us nothing about the production possibilities of the two situations. Just as the *convexity* of behaviour lines prevents one from inferring anything about utility possibilities from $\sum P_1 Q_2 > \sum P_1 Q_1$ or from $\sum P_2 Q_1 > \sum P_2 Q_2$, so the concavity of transformation curves prevents one inferring anything about production potential from the reverse inequalities. But equally $\sum P_1 Q_2 > \sum P_1 Q_1$ and $\sum P_2 Q_1 > \sum P_2 Q_2$ enable one to infer something about production potential. The former tells us that the goods of the second position could not have been produced with the factors and techniques of the first situation even if the production possibility function were linear, and *a fortiori* if it is concave: and the latter that the goods of the first position could not have been produced with the factors and techniques of the second situation.

In order to infer that the production potential of the second situation is higher than that of the first one would require at least that $\sum P_1 Q_2 > \sum P_1 Q_1$, and that $\sum P_2 Q_2 > \sum P_2 Q_1$ (the latter in order to avoid a contradiction). But in fact, it is doubtful whether this is enough—for the phrase ‘an increase in production potential’ would seem to imply that the factors and techniques of the second situation could more than produce *any* set of goods which could have been produced with the factors of the first situation and this no mere index-number can tell us. If then the phrase is used when these index-number criteria are satisfied, it is important to remember that they merely mean that the second situation could more than produce the *actual* goods produced in the first, and the first could not have produced the actual goods of the second.¹

It may occur to the reader that the approach via, as it were, the goods potential of a situation, and the approach via the utility potential of a set of goods should be combined, and the utility

¹ The above analysis of ‘production potential’ is based on P. A. Samuelson, ‘Evaluation of Real National Income’, *OEP*, Jan 1950.

potential of the two situations be compared, free play being allowed to the sets of goods to accommodate themselves to the different distributions of wealth. If this is done, the result is the conclusion that index-numbers can tell us nothing about the utility or welfare potential of different situations with different transformation curves (see Samuelson, *loc. cit.*, above, p. 17).¹ From the point of view of using predicted changes in the national income as a guide to policy this is unfortunate. The fact that the actual goods of the first situation (which may be thought of as the *status quo*) could not make everyone as well off as they would be in the second situation is not a sufficient reason to move to the second situation, in that it might still be the case that *some* set of goods, which would have been produced in the first situation if money had been suitably redistributed, could have made everyone better off than they would have been in the second situation.

Struck perhaps by the shakiness of the transformation rate approach to production indices, Professor Kuznets has tried to introduce, or reintroduce, a different concept of production. Thus he writes

The widespread tendency to identify social income as a measure of welfare, with social income as a measure of productivity . . . is grounded upon the sound notion that the 'product', taken as the yield of resources, cannot differ from the welfare equivalent, for the simple reason that the latter represents the positive result of the use of resources, and that resources have no weight independent of the positive result of their employment.²

This passage seems to be a recommendation to use the word 'product' in the same sense as the word 'welfare'. Thus, to say 'the "product" . . . cannot differ from the welfare equivalent' is only another way of saying "'product" is equivalent to "welfare"'. If 'production' thus always meant 'welfare production', and it is accepted that the best index for a guide to welfare is the market-price index, then, of course, the best production index is, *ipso facto*, the market-price index. Professor Kuznets's claim that the production measure and the 'welfare' measure should be identical would be established. But, in fact, 'production' does not mean 'welfare production', although the statement 'production is greater' may tend to suggest that something good has occurred. It is, however,

¹ The reader can also easily satisfy himself of the truth of this with the aid of a diagram containing transformation curves and community-indifference curves, as defined in Ch. XIII.

² S. Kuznets, *loc. cit.*, p. 124.

obviously not contradictory to say that production has increased, but welfare has diminished. Welfare is not necessarily the positive result of the use of resources. To suppose that 'welfare production' and 'production' really mean the same is again to confuse the two ideas which Professor Hicks separated out in the article cited.

In addition to arguing that a 'welfare' measure and a 'production' measure must really be the same, Professor Kuznets also argues that the market-price index, as a matter of fact, is a better measure of production potential. This is rather confusing, because, if it were true that a 'welfare' measure and a 'production' measure *must* be the same, then there is no need to show that, as a matter of fact, they are the same. But to take the last argument on its own merits, the claim is that marginal costs are better represented if indirect taxes (*less*, presumably, subsidies) are added on. The assumption on which this claim is based is that the cost of free government services to firms can be equated to the amount of net indirect tax paid. Thus factors would be weighted by the payments to them, *less* direct tax, *plus* transfers, *plus* final free public services. (That is, national income is equal to rent, interest, profits, wages and salaries, *less* direct tax *plus* transfers *plus* final free public services.)

If we agree, for the sake of argument only, that disposable income *plus* final free government services (equal to the usual 'welfare' measure *less* free intermediate services) is what ought to go into a 'welfare' index, then the two indices would coincide. It is possible that Professor Kuznets's resultant production index would be better than the ordinary one, which takes no account of changes in intermediate governmental services. For instance, if there was an increase in essential intermediate services, *without* an increase in indirect tax, his index would show a fall in productive potential, which would be correct, since the previous collection of final goods could no longer be reproduced. On the other hand, if there was simply a change in indirect taxation, without any change in production or intermediate services, Professor Kuznets's index would normally show a change in productive potential, which would be incorrect. There would seem to be no particular reason to suppose that this index would be better than the ordinary one, although, in view of the shakiness of any index, it could hardly matter very much which we used, especially since they would be most unlikely to give very different results.

It was necessary to discuss an index based on factor costs, because this is the only possible index for those goods and services which are not bought by individuals, and which, therefore, have no market valuation. Thus the market-price index can refer only to goods chosen directly by individuals. Now goods which are chosen collectively may be divided into two classes—'welfare goods' and 'non-welfare goods'. Some people might want to declare the latter a null-class, and claim that battleships and tanks contributed to people's welfare. I think, however, that most people who so thought would not want to say that battleships contributed to current welfare, they would rather regard such things as a kind of insurance, rather than actually as constituents of a good life. Although it is a matter of opinion what kinds of things should be classed as 'non-welfare goods', the statistician who wants to produce an index which will be most useful as a guide to welfare must make a guess as to what most people would want to see included. Roughly speaking, I think most people would want to fit into this category, or regard as costs rather than utilities, those goods and services which are not individually chosen, and would not be regretted by many people if a diminution of them did not tend to a reduction in the amount of any other kind of good—such things as justice, police, and defence. The admittance of a category of non-welfare collective goods implies, of course, that we do not ourselves believe that disposable income *plus* government free final services of all sorts comprises the contents of the best index for welfare purposes.

Thus we have three sectors of the economy (*a*) a collective non-welfare sector, (*b*) a collective welfare sector, and (*c*) a sector the goods of which are individually chosen (this is, by definition, a welfare sector). We will still assume, for the moment, that there is no saving.

The first sector (*a*) is, by definition, excluded. But clearly both (*b*) and (*c*) must be included. In sector (*b*) the only possible index seeks to answer the question 'Could last year's collection of goods have been produced this year?' Now, as far as sector (*c*) is concerned, we have argued that the market-price index should be used, and that it is a guide to welfare in that it tells us whether any redistribution of income, given last year's goods, could have made every individual as well off as he is this year (given a constant population of choosers, &c.). The question arises as to what justifica-

tion there can be for lumping together two such conceptually different indices. The resultant would be a hybrid to which no definite meaning could be attached. Some writers have satisfied their consciences by making the very dubious *ad hoc* assumption that publicly provided goods would just fetch their cost price on the market. We have, however, contended that the sector (c) index cannot possibly have any precise meaning in terms of actual individuals anyway. And Professor Hicks has shown that the factor-cost index also can have no precise meaning. We can therefore cheerfully lump the two indices together, since what we are looking for is the index which will be of most assistance to most people for drawing welfare conclusions, we are not looking for an index with a precise meaning. That would, in any case, be a wild-goose chase. On the other hand, it would be an advantage to have a separate index for both sectors. This is because many people are interested in their comparative growth, their respective magnitudes being of considerable social significance.

We must now consider the question of how best to treat savings. Savings can hardly be left out of a welfare measure. No one would want to say that people are worse off because they freely decide to save more. They might say that their standard of living had fallen, but not their welfare. Therefore, savings should, in my opinion, be considered to contribute to current welfare. But all saving, except saving by public bodies, arises in the individualist sector. (Admittedly, there are private collective savings, but perfectly clear-cut lines of division are impossible. The two collectivist sectors together may be taken to apply to what is usually called the public sector of the economy. This division is less distorted by the adoption of the convention that undistributed profits are individual savings than it would be by including them in the public collective sector.) Therefore it would appear that all such savings are, for welfare purposes, to be included in the individualist sector, whatever the class of investment to which they correspond. This is not, however, altogether paradoxical, for current investment has no direct relevance to the present happiness of individuals. But current savings do contribute to people's happiness so long as they believe that their savings will retain their value.

Professor Kuznets adopts a different view of savings. He believes that the decision to save should be regarded as a decision to make some real investment. He then suggests that the investment total

and the consumption total may be added, because the value of capital goods is, in theory, the discounted value of their future yields. He considers that this treatment approximates better to the true meaning of savings decisions. It is difficult to agree with this, when a decision to save is independent of, and by no means always accompanied by, a decision to invest.

Professor Kuznets writes.

We must value in terms of current welfare also such parts (of total output) as represent a net addition to (or a net draft upon) the country's capital, whether under private or public auspices.¹

But surely, if an appeal has to be made to future yields, this has not been done. The expected future 'yield' of an individual's savings is based on the rate of interest, and the price level of consumption goods now, and in the recent past. It seems to me that we approach more closely to the meaning of individual decisions to save if we adopt the alternative view that a decision to save is a decision to accumulate purchasing power over future goods of the kind available in the saving situation. This view is consistent with adding in private savings to the welfare sector, without requiring any elaborate assumption about the relation of the discounted value of the yield to the present value of resources. The only practical differences between these views are, (1) that, on the present view, public saving should be excluded from the welfare index, and (2) that the income totals should be deflated by a price index comprising consumption goods only.

Both views have, however, a common disadvantage. In a time of rising prices, caused perhaps by the devotion of much investment to the non-welfare sector, the value of people's savings falls. Some people would then probably want to say that saving was only an illusory contribution to welfare. They would want to make a distinction between their being really better off, and their only thinking they were better off. This, however, raises all the difficulties associated with assuming that $\sum p_2 q_2 > \sum p_2 q_1$ is an adequate criterion of individual welfare. The most that one can say is that, so long as one lays emphasis on individual choices, it seems more consistent to accept the view that savings contribute to current welfare, whether they are being used to finance battleships or consumption-goods factories, and our discussion of the welfare mea-

¹ *Loc cit*, p. 13.

sure for the predominantly individualist sector of the economy is based on the assumption that great emphasis is laid on individual choices.

It must, however, be admitted that the above discussion is very academic, for it is most unlikely that a budget surplus or deficit would, in normal times, make sufficient difference for it to be reasonable to suppose that one treatment would result in a better guide to welfare than the other. Under abnormal conditions, such as a very severe inflation, no measure based on a quantity index would be of any value. The condition $\sum p_2 q_2 > \sum p_2 q_1$ would have little relevance, even in relation to an individual's welfare, if prices were changing very rapidly, and no relevance to the welfare of the community, unless it was at least given that the resultant large changes in income distribution were approved of

We conclude that the most useful guide for the purpose of making welfare judgements would be to have two indices, one comprising private savings *plus* private consumption, using a market-price index as deflator, and the other comprising the output of final collective 'welfare goods', using an index of costs as deflator. But such indices cannot be treated as *measures* of welfare. They would be better regarded as providing some evidence, which people may use to assist them to make welfare judgements, if they want to.

CHAPTER XIII

WELFARE THEORY AND INTERNATIONAL TRADE

WE do not propose to analyse the welfare implications of all the manifold different trade policies which a country might adopt. We shall content ourselves with three of the most important topics first, the 'gains' from international trade, secondly, the 'gains' which can accrue to a country as a result of raising a tariff barrier, and, lastly, the question of the desirability of free trade.

A correct statement of the 'gains' which may accrue to a hitherto isolated country as a result of entering upon international trade can be most simply made in terms of the analysis of the national income which we made in the last chapter

Let us first postulate that all the 'optimum' conditions of production and exchange are satisfied in a certain country. Let the money value of the national income be $\sum P_1 Q_1$. The fact that all the 'optimum' conditions are satisfied implies that no other set of goods (such as Q_0) which could be produced would suffice to make everyone as well off as they, in fact, are. In other words, the gainers by a movement away from the production aggregate, described by $\sum P_1 Q_1$, would not be able to compensate the losers. This implies that $\sum P_1 Q_1 \geq \sum P_1 Q_0$, because, as we saw in the last chapter, this condition describes a situation such that the Q_0 's could not be distributed in such a way as to make everyone as well off as in situation I.

Next, let us suppose that the trade barriers are removed, and that relative world prices are not identical with the price-relatives in the hitherto isolated country. Trade therefore takes place, and we will suppose that a new equilibrium results, such that the national income of the country in question is now $\sum P_2 Q_2$. We assume that all the 'optimum' conditions are again satisfied. It once more follows that no other set of goods which could be obtained by production or exchange would suffice to make everyone as well off as in the post-trade equilibrium position.

Now among these other sets of goods which could be obtained is the set produced in the pre-trade equilibrium position. It there-

fore follows that $\sum P_2 Q_2 \geq \sum P_2 Q_1$. The interpretation of this inequality is the same as in the last chapter. If the distribution of real income is no worse in the second situation, then welfare can be said to have increased. We would not require to assume 'optimum' conditions of production and exchange within the country if it could be assumed that production would be in no way altered by the opening of trade. In that case, the above argument also shows that the post-trade position is better than the pre-trade position, in that the set of goods produced within the country, after trade has commenced, would be incapable of making every individual as well off as he is with the goods he actually consumes.

Thus we see that the correct statement of the 'gains' from trade is not that the 'gainers' could overcompensate the 'losers'. That is not, as we saw in the last chapter, implied by the condition $\sum P_2 Q_2 \geq \sum P_2 Q_1$. In his article 'The Gains from International Trade'¹ to which the above argument owes much, Professor Samuelson states that 'more of every commodity can be secured with less of every productive service. This ensures us that by Utopian co-operation everyone can be made better off as a result of trade'.² This conclusion, that everyone could be made better off, presupposes the possibility of a production pattern different to that of the actual post-trade equilibrium position. Thus Professor Samuelson argues that trade could make everyone better off, and not that a redistribution of the goods actually obtained by trade could make everyone better off. Our statement is rather different. We say that the post-trade position is actually better than the pre-trade position, if the distribution of real income has not deteriorated.

We have said nothing about productive services. At the formal level they can be dealt with by the inclusion of leisure among the 'products'. It may also be noticed that the above argument makes no mention of comparative costs in the foreign country. When we are considering the gains which may accrue to a single country, this is not necessary. All that is required is that comparative world prices should be out of line with comparative real costs in the home country.

The gains-from-trade argument has usually been stated in a form which shows that both countries will gain from embarking on some

¹ C J E P S, vol v, May 1939, reprinted in *Readings in the Theory of International Trade* (Blakiston, 1949)

² Loc cit (Blakiston, 1949), p 238

trade. For this argument to be valid, it is further required that all the 'optimum' conditions of production and exchange should be satisfied in both countries, or, if all countries are involved, in every country, so that transformation rates are equal to comparative real costs, or else it must be assumed that production is unaltered in every country, so that the problem becomes merely one of exchange. Then so long as trade does not shift the distribution of real income in an unfavourable manner, either between individuals in one country or between countries, it follows that trade increases welfare. The argument in favour of universal free trade simply results from pushing the gains-from-trade argument to its logical limits. If to the above assumptions we add universal full-employment, and the absence of external economies, &c, then we arrive at the theory that free trade 'maximizes world welfare', because it results in the fulfilment of all the 'optimum' conditions of production and exchange throughout the world. But it is only 'world welfare' that is supposed to be maximized. An individual country may gain by a restrictive policy, just as an individual monopolist may so gain. This brings us to the question of tariffs.

In considering tariffs, we will first deal with the simple two-country two-good case. This, and other international trade problems, can be dealt with graphically with the assistance of the device known as the 'community-indifference' curve.

The 'community-indifference' curve has been defined by Professor Scitovsky in a manner which does not involve us in the absurdity of treating a community as a person, when it is actual individuals, or small social groups within the community, in terms of which community welfare (or indifference) is defined. To quote.

In a Cartesian plane whose axes measure physical quantities of two commodities, say bread and wine, designate by p_0 the amounts of these goods possessed by the community and assume that they are distributed among its members in a given way. Assume next that the community is induced by a rise in the price of bread to give up a certain quantity of it, say b_0, b_1 . Then it is possible exactly to compensate everybody for his loss of satisfaction by distributing a certain quantity, say w_0, w_1 , of wine. p_1 therefore is a point of indifference to p_0 , in the sense that it represents for each member of the community the same welfare that he enjoyed at p_0 . In a similar way, we can draw all points of the community-indifference curve going through p_0 .

firm ought to be expanded. Some labour might be drawn from outside manufacturing industry, for instance from agriculture, but it is evident that the required equality would come about mainly as a result of a rise in direct costs and a fall in price. There would be very little readjustment of productive resources. The chief change would be an increase in the real wages of manual labour at the expense of those who live on overheads. Thus it would appear that the chief argument against imperfect competition is one of the redistribution of income. But this redistribution can also be effected by taxation up to the point where there is a decrease in the supply of entrepreneurs, managers, and supervisory labour, i.e. a decrease in the supply of the middle classes.¹ Beyond that, profits may be squeezed to the point where they cease to be an adequate driving force for a capitalist economy. It is curious that this income redistribution argument is not the one which has been stressed.² The theory has, on the other hand, built up a formidable barrage of emotive phrases to convince one of its social importance—phrases such as ‘productive inefficiency’, ‘misallocation of resources’, ‘restrictionism’, ‘degree of monopoly’, and so on—to say nothing of the titles themselves ‘imperfect competition’, and ‘monopolistic competition’. But, in the short run, even at the purely theoretical level, the charge of misallocation of resources has to wait upon a detailed study of the ‘degrees of monopoly’ which prevail. Moreover, we have shown that the theoretical level is a very shaky one. One certainly has no real cause to speak of misallocation

of raising prices—and it is always possible that some will not follow suit, in which case much goodwill would be lost. These considerations lend support to the view that the ‘degree of monopoly’ will decrease when demand is strong, and bear little or no relation to any actual or imagined elasticities of demand. Thus, although, in the text, we meet ‘imperfect competition’ on its own ground, that does not mean that we necessarily think that its short-run analysis often bears much relation to the facts. (For a discussion of business behaviour, in which marginal analysis is rejected, see P. W. S. Andrews, *Manufacturing Business*, Macmillan & Co. 1949.)

¹ i.e. up to the point where the optimum factor-supply condition is seriously upset, as far as those who live on overheads are concerned. The socialist economy faces the same problem, however, except in so far as it can take the risks, its managers must still be paid their supply price.

² It has, of course, been made, cf. Meade and Fleming, loc. cit., pp. 327–8. Probably the reason why it has not been stressed is that many economists wrongly believe that they are being perfectly scientific and objective if they say ‘If price is not equal to marginal cost, welfare could be increased’ and unscientific if they say ‘Welfare could be increased by redistributing wealth in such and such a way.’

of resources unless by a detailed study one has at least shown that the shift of resources which would result from a change in some 'degree of monopoly' would increase the national income. Unless the ratio of marginal costs in two competing firms was very badly out of line with relative market values, one could surely have no reasonable confidence that this would be the result. Ideal outputs exist only in books on economics. In the real world there are no such things.

In the long run, the theoretical welfare implications of the doctrine of imperfect competition are rather different. Here the charge is that firms are too small, because, with a falling demand curve, the equality of long-run marginal cost and marginal revenue determines a size of plant which is smaller than that which corresponds to the lowest point on a long-run average cost curve.¹ But, except in the unreal case of pure oligopolistic competition (that is, where there is no product differentiation), the reason why the demand curve is falling is that every firm is producing a somewhat different product. Since the products are different, the removal of a firm is a non-marginal change involving consumers' surplus. Professor Hicks has remarked on the inconsistent procedure of deducing a falling demand curve from product differentiation, and then assuming that the firm is producing a unique product in arriving at the conclusion that the firm is too small, and there ought to be fewer firms of a larger size. Thus he writes

To emphasize the differences between the products for the purpose of getting a downward sloping demand curve for the individual firm, and then to neglect the differences between the products (irrational preferences¹) for the purpose of neglecting the consumers' surplus, is both inconsistent and practically dangerous.²

¹ This theory can obviously only apply in a limited section of the economy. Schumpeter wrote 'Such cases do occur, and it is right and proper to work them out. But, as the practical instances usually given show, they are fringe-end cases to be found mainly in the sectors furthest removed from all that is most characteristic of capitalist activity' (*Capitalism, Socialism and Democracy*, 2nd ed., p. 85). He notes 'This is also shown by a theorem which we frequently meet with in expositions of the theory of imperfect competition, viz the theorem that, under conditions of imperfect competition, producing or trading businesses tend to be irrationally small. Since imperfect competition is, at the same time, held to be an outstanding characteristic of modern industry, we are set to wondering what world these theorists live in' (ibid.).

² J. R. Hicks, 'The Rehabilitation of Consumers' Surplus', *R.E.S.* (1940-1), p. 116.

Professor Hicks has also expressed himself on the most general formulation of the (welfare) theory of imperfect competition as follows

But when we start from a position where there is an excess of price over marginal cost in the related industries, the social cost of producing a particular article is no longer represented by its marginal cost curve. . . The social surplus equals consumers' surplus *plus* producers' surplus *minus* loss of potential surplus on other commodities, this may well be negative, when producers' surplus is positive. This is the possibility which has been uncovered by the modern theories of imperfect competition; it is, in fact, the correct and general statement of the possibility of loss due to imperfect competition.¹

But it is not, of course, necessarily the case that a new firm, setting up in an imperfect market, will 'decrease welfare' (even on the Kaldor-Hicks definition) because, although it will ignore the loss of producers' surplus elsewhere which it causes, it will also be unable to tap all the consumers' surplus. The necessity of the introduction of consumers' and producers' surplus means that there is no clear way of deciding whether there are too many firms producing too many different things, or not. The case for standardization on a smaller range of commodities lies outside the pure static theory of welfare. It must rest on an overriding of consumers' choices, on the ground that people are irrational or the ground must be that consumers never have the choice between the small range of cheaper goods and the larger range of more expensive ones, and therefore cannot show that they would really prefer the former.

My conclusion is that any general charge of maldistribution of resources on the ground that competition is not perfect cannot be substantiated from the basis of welfare theory. If the authority of Marshall and Professor Pigou can be evoked for 'marginalism', at least I can claim the support of Keynes, who, with Olympian disdain, wrote 'There is no reason to suppose that the existing system seriously misemploys the factors of production which are in use'.²

Schumpeter came to the same conclusion, although, for other

¹ J. R. Hicks, *loc. cit.*, p. 116

² *The General Theory of Employment, Interest and Money*, p. 379

mainly dynamic reasons,¹ he believed in the economic superiority of a socialist system. He remarked

Socially irrational allocation of resources is not nearly as frequent or important as it is made out to be. In some cases, moreover, it is no less likely to occur in a socialist economy. Excess capacity, also partly inevitable in a socialist economy, will often bear an interpretation which rebuts criticism.²

We have already remarked that the theory of imperfect competition has tended to blur the distinction, as far as welfare is concerned, between monopoly and competition. This is because the case against both is held to be the same, in that price is not equal to marginal cost. Yet, where there does exist a monopoly or a non-competitive oligopoly, which can foresee no potential competition, it is at least more likely that the phrase 'restriction of output' can be significantly used. Even so, we doubt whether there is a valid static-theory argument against monopoly in general. If we define a monopoly as a business whose negatively inclined short-run demand curve will not be significantly affected by the output or price decisions of any other business, it may still be true that few monopolies can be so confident of their long-run security that they can ever afford to 'exploit' the short-run position in the manner portrayed in the text-books.³ And, even if they did so, it still may not be the case that relative marginal cost would be very badly out of line with relative prices—and, as we have seen, this inequality would have to be large before one was justified in speaking of mis-allocation of resources. Nevertheless, it seems very important to

¹ The exceptional (static) reason which Schumpeter gave for preferring a socialist system is the great saving which he believed would result from all earnings being paid net of taxation. To quote 'For as a matter of commonsense it would be clearly absurd for the central board to pay out incomes first and, having done so, to run after the recipients in order to recover part of them' (*op cit*, p. 199). But, if incomes are to be linked to marginal productivities, or even to the amount or kind of work done, they must be paid by local managements. Surely no one believes that an ideal income distribution can be determined without taking into account, not merely the amount and kind of work, but also the family circumstances of the worker. It is often forgotten that income distribution is not merely an inter-class but also an intra-class matter. If this is so, then the amount each worker was to receive would not only have to be paid by local managements, but would also require some calculation. PAYE experience in this respect might convince some people that the great savings, envisaged on this account, would be non-existent. Yet, Schumpeter concluded that 'here we have got hold of one of the most significant titles to superiority that can be advanced in favour of the socialist plan' (*ibid*).

² *Ibid*, p. 194.

³ See above p. 266, n. 3.

retain a clear distinction between monopoly and competition. There may be important dynamic differences between the two. And there are certainly important social and ethical differences.

We must now take leave of the subjects of socialism and imperfect competition, and take notice of the fact that *laissez-faire* is not dead, but modified. Static welfare theory is still being used to support *laissez-faire*. Ruling out, for other reasons, the socialist competitive solution, or regardless of the danger of playing into the hands of the scientific static marginalists, some writers still extol the beauties of *laissez-faire*, in order to demonstrate the 'irrationality' and stupidity of planning. No one would, of course, go so far as to claim that *laissez-faire* is ideal. But, given that more or less full employment is maintained, by fiscal and financial policy, and given a suitable measure of income redistribution, it is claimed that, for the rest, the unimpeded price-mechanism is pretty good at solving the economic problem, and that planning will distort the allocation of resources in an irrational or uneconomic manner.

Unless the extent of the planning and its nature is described, there is little that can be said. At the one extreme, if planning takes no notice of costs whatever, it is clear that welfare theorists could object. But then probably no economist would advocate such planning. At the other extreme, if interference is only made when welfare theory indicates control as a solution for some problem, or when serious disequilibria occur, or in spheres in which welfare theory does not apply (we have in mind the question of standardization), or where it is particularly unpalatable (in matters of investment), then clearly little or no case can be made out against planning. No general case can be made either way. Economic welfare theory is not so realistic that it can claim that the onus of proof always lies with the planners, although, of course, one's political views may lead one to this conclusion. Also it must be noted that planning in general is not a political issue. It only becomes one if the extent of planning is in question.

In some people's minds the real controversy between planners and anti-planners is not one to which welfare theory has any relevance. It is rather the question what kind of welfare theory is acceptable. The important issue is believed to be the question whether planning, of a degree to which anti-planners object, is compatible with the retention of a liberal set of values. The fear of these anti-planners is that the planners will inevitably tend to

substitute their own values for those of the market ¹ If planning is so complete that no free market exists (some market must always exist, for if there is no free market a black or grey market is inevitable) no other outcome is possible. But even if a consumers' market exists, it may merely be used for the purpose of distributing that stock of goods which, the planners have decided, is to be made available for consumption. Any physical planning, and even financial planning by taxation or subsidy, implies some degree of divorce between production and market valuations, unless it is used merely to correct obvious discrepancies which may tend to occur spontaneously when decentralized profit maximization is the driving force, or, in a decentralized democratic socialistic system, the chief regulator of the economy.

Almost everyone agrees that some divorce between production and the dictates of a free market is desirable, even if the interference is only such as to prevent the production of brothels, or the unregulated sale of dangerous drugs. But our analysis has led us to the view that it is usually very difficult to be at all sure when, on our individualistic assumptions, one would do good by interference and when not. We have suggested that certain obvious cases for interference occur. The most obvious and important cases are the control of aggregate demand, and some measure of welfare redistribution. In such cases, intervention with the processes of *laissez-faire* obviously do good. Then there are cases where planning is inevitable and cannot be held to conflict with individuals' preferences, because the market mechanism does not allow these to express themselves (the obvious case being goods which can only be collectively consumed). There are also 'neutral' cases where it is far from obvious that planning will do good, but where it cannot be held to conflict with individual preferences, because it is very unpalatable to suppose that they are adequately reflected by the market mechanism (the obvious example being aggregate investment). What is certain is that planning yields high returns at first, but that these returns decrease rapidly to a margin beyond which it cannot be said whether it does good or not.

There are, in fact, two such planning margins—an intensive and an extensive margin. People of an individualistic and liberal turn

¹ The theory that this is inevitable is put forward in Walter Ducken's article 'On the Theory of the Centrally Administered Economy: An Analysis of the German Experiment', *Economica*, May and Aug. 1948.

of mind, even supposing that they hold similar views about income and property distribution, may, nevertheless, differ widely about where the margins lie. There may thus be a fairly broad area of disagreement, without any ideological conflict. Nevertheless, if Smith wishes to extend planning further than the point, or points, beyond which Jones believes that it is far from obvious that welfare would be increased, then the latter is liable to suspect, rightly or wrongly, that Smith is beginning to substitute some other values for those of the market. Because of the fact that individual preferences can direct the economic system only in a comparatively crude manner, it is sometimes difficult to know whether the premises of those who disagree are really the same, or whether the issue lies between someone who sees the price-mechanism as a good method of democratic decentralization, and someone who believes in planning for reasons other than that it may correct some of the divergences from an individualistically determined optimum (however vague), which are certain to occur in a *laissez-faire* economy. Questions of welfare, real income, efficiency, &c, cannot be debated at all, at the economic level, if people are at variance on this latter kind of issue.

We may now sum up our discussion of the political implications of pure static welfare theory. We do not believe that it can be reasonably and honestly used in defence of, or against, any particular political system. The marginalist socialist 'blue-print' is a formal system of deductions of highly dubious applicability, even in an absolutist state, and certainly incapable of application in a democratic state. In my opinion, static welfare theory could only convince someone who was blind to realities, and very susceptible to emotive language, of the benefits of socialization. Equally, it could only convince someone who was similarly blind, and open to suggestion, of the benefits of *laissez-faire*. The theory suggests that some planning is beneficial. But planners cannot reasonably claim its support for much—probably not for enough to make planning a very controversial issue. These conclusions are reached in the face of the fact that the theory has been persistently used, by all sides, as a political weapon.

CHAPTER XV

CONCLUSIONS

THIS book might, in part, be described as a study of the usage of influential and persuasive language in economics. Wherever it has been found that the terminology of economics is, in this sense, normative, we have suggested that the ethical issues involved should be brought right into the open. Unless this is done, it is often not at all clear whether a dispute is one of fact, or one of value. A discussion, which is superficially objective and factual (because frankly ethical expressions are not used), but which is really about values, though the contestants may not realize it, is usually unhelpful, and may tend to create ill feeling.

I am far from suggesting that economists must try to be neutral on ethical issues (the fact that, for instance, I have chosen to give an exposition of the traditional welfare economics implies an acceptance of certain liberal values). As I have said, the distinction between economist *qua* economist, and economist *qua* ordinary mortal, is one that cannot be very easily maintained. Bringing ethical questions into the limelight does not imply any kind of neutrality. There is, admittedly, a tendency to think that once it has been shown that people differ on questions of value, then nothing more remains to be said. But this is a mistake. One can often convince someone, by reasoning with him, that one's own ethical beliefs are better than his. This is, however, different from trying to get one's opinions accepted by means of a propaganda use of language—different, that is, from trying to put something over by means of implicit persuasive definitions.

Thus I am not crusading against the use of all influential language in economics—that would be to oppose the use of all ethical judgements in the subject. I only want it to be recognized that many of our economic phrases are emotive. If this is not recognized, then many real, though apparently sham (because terminological), battles will continue to be fought. If, however, it is recognized that such battles may be real ones—of values—then they could be better waged, with more enlightenment for the spectators, if the decks were cleared of any encumbering pseudo-objective terminology. I am, in fact, suggesting a better separation, in

economics, of different levels of discourse. This cannot be achieved if it is not recognized that many economic statements, which appear at first sight to be merely descriptive, have value implications. Among the most important of such phrases are 'increase of welfare' and 'increase of real income'.

I have rejected the utilitarian view that the logical calculus of 'welfare' economics should be interpreted in terms of satisfaction or happiness, on the ground that it is misleading to describe welfare economics as the science which studies the economic causes of the happiness of communities. So to describe it suggests a degree of objectivity and precision which is lacking. It is, for instance, very much a matter of opinion whether some given redistribution of money would increase or decrease happiness. I also claimed that there is an element of prescription in judgements about the happiness of communities. But even if I am wrong about this, it is, in any case, certain that people will slip into using prescriptive terminology—will slip from statements about happiness to statements about welfare, and thence to the use of words such as 'improvement' and 'benefit'—without paying much attention to the change. I have taken the view that the essential purpose of welfare economics is to prescribe, and that therefore certain questions of value are begged unless it is explicitly based on value judgements.

Thus my rejection of the utilitarian scheme of things has not been based on the perhaps rather dogmatic objection that satisfactions cannot be added, and certainly not on a 'denial' of interpersonal comparisons. As a matter of fact, I think that many people, in deciding what ought to be done, often employ some sort of hedonistic calculation. But such calculation is not *logically* essential to prescriptive economics. What we require are judgements about the sort of thing that ought to be done, and it does not matter to us what imaginative processes people employ to help them arrive at such judgements.

Accordingly I have proposed that welfare economics be based on the following sufficient criterion for a desirable economic change: an economic change is desirable if (a) it would result in a good redistribution of wealth, and if (b) the potential losers could not profitably bribe the potential gainers to oppose the change.¹ Two value judgements are presupposed by this criterion. The first

¹ This is subject to certain qualifications as to the sense of the word 'desirable' which it would be tedious to repeat at this point. See Ch. VI.

is that an individual becomes better off if he is enabled to reach a position higher up on his order of choice. The second is that the community is better off if one individual becomes better off, and none worse off. It is thought that both of these judgements would be widely acceptable. It has further been shown that the above criterion is sufficient, given enough *factual* assumptions, to deduce that a realization of the 'optimum' conditions of exchange and production would be a good thing, so long as a worse distribution of wealth would not result, or could be avoided by compensation.¹

I have claimed that the above foundations are firm. Anyone may accept welfare economics on such a basis, or reject it. But the important thing is that it is clear what has to be accepted or rejected. If the conclusions follow from the axioms, and the meaning of the axioms is clear, then a system can be said, I think, to have firm foundations.

The suggested criterion is not, of course, objective. Whether a given economic change would be good or bad remains a matter of personal opinion. For it is a matter of opinion whether or not the change would cause a good, bad, or neutral redistribution of wealth or welfare. It must be emphasized that this does not imply that welfare economics is useless. Most people would accept the two fundamental value judgements. The theory, *if the required factual assumptions are deemed realistic enough*, in any particular case, enables such people to agree on the goodness or otherwise of the change, given that they give the same answer to the question about distribution. And even when there is no agreement about income distribution, useful conclusions may be reached, of the form 'This redistribution would be attained better by change *A*, than change *B*'.

Thus I think that welfare economics may best be considered as the study of whether or not one configuration of the economic system is better or worse than another and whether a change from one to the other should be made. Whenever these questions arise, whether explicitly or by implication, then I suggest that the answer be based on the above criterion. This means that welfare economics is not solely concerned with the development of 'optimum' conditions. It is concerned not only with prospective changes, but also with the results of actual changes which have occurred. It is

¹ We also, of course, have to assume that any induced non-economic changes are neutral or good.

obvious that the question whether economic welfare increased over some past period is a question in welfare economics. It is not quite so obvious that the same question whether posed with reference to real income, wealth, production, real wages, consumption, or standards of living, is also a question in welfare economics. But all these words or phrases belong to the pseudo-objective terminology of economics. They are substantival words which look as though they refer to something, changes in the magnitude of which may be measured, but this appearance is misleading. The size of a collection of incommensurable kinds is a concept which requires the assignment of weights, which determine the relative importance, *for some given purpose*, of the different kinds. One cannot, strictly speaking, discuss the question of changes in the size of such collections at all. The size of a thing is something objective, which is independent of the purpose of the measurement. But the 'size' of, say, the national real income has no such independence. Nevertheless, there is a correct answer (or rather, the form of a correct answer) to such a question as 'has real income increased?'. This is because the purpose, which determines the weighting, is suggested by the value implications of the sentence 'the real income of society has increased'. In other words, the purpose is to discover whether or not there has been an improvement. Consequently our 'welfare' theory tells us that the weights must be market prices, and that the answer to the question must then be determined by reference to our fundamental criterion.

Welfare economics is, then, likely to be useful if its factual assumptions are realistic enough. We saw that the question whether they are realistic enough is very difficult to answer, because the conclusions of the theory cannot, in practice, be tested. Whether its conclusions, in any particular case, are to be accepted or rejected is thus, even given agreement on all questions of value, a matter of judgement and opinion. There is no question of proof.

The first difficulty is that our criterion often, in practice, rests on the assumption that money may be redistributed without offending against any of the theoretical 'optimum' conditions. Such redistribution would frequently be an administrative or political impossibility.¹ Therefore many changes may have to be admitted to be

¹ Or it may be impossible because the potential losers have no 'lump-sums' which can be used to bribe the potential gainers. However, if there were no property, then a good redistribution of earned income by direct taxation would

desirable although they do not satisfy the criterion. Thus a change may be held to be good, if it effects a good redistribution, although, in theory, this redistribution could have been better carried out by 'neutral' money transfers. Therefore our criterion must be regarded only as a sufficient criterion for a desirable economic change, and not as a definition of 'an increase in economic welfare'. Its applicability, in opposing a particular change which would result in a good redistribution of real income, is limited by the practical possibility of carrying out the required redistribution in some better way.

But, in every case, the exact application of the theory would require the existence of eternal and perfectly consistent individuals, who choose between infinitely divisible goods of unchanging quality. In my opinion this unreality does not in itself suffice to make the conclusions of the theory worthless, but does make it silly to treat them as anything but rough guides to practice. It was argued that any divergence from 'optimum' conditions must be large before one could have any reasonable degree of confidence that an improvement would result from trying to satisfy them.

The above assumptions suffice only for the derivation of the 'optimum' exchange conditions, and, given perfect statistics, for the use of index-numbers in judging whether real income, consumption, &c., has changed. The 'optimum' conditions of production require many further unrealistic factual assumptions, and are, accordingly, less trustworthy. In particular, we found that the theorem that output ought to be adjusted until price equals marginal cost is extremely shaky, and we did not feel justified in taking much notice of it except in a few special cases. This theorem is the most important and the most controversial conclusion of welfare theory. It lies behind many of the widely accepted practical implications of economic theory. It is highly controversial because it is the only one of the 'optimum' conditions which also has serious political implications. The fact that I cannot bring myself to believe that the distinction between average and marginal cost is, more

satisfy our criterion. The potential losers could not profitably bribe the potential gainers to oppose the change, because the bribes required would be the exact equivalent of the proposed taxation. This would only not be the case if the bribe could be capitalized, and property transferred. Thus the fact that there might be no 'lump-sums' to transfer does not necessarily render the criterion inapplicable, although it does imply that it might not be a good thing to put the optimum labour-supply condition into operation, or make marginal cost equal to price.

than very seldom, of the slightest importance to the welfare of society, has led me to the view that this branch of economics—pure static welfare theory—is, or rather should be, of little or no political import

We can, on the other hand, scarcely doubt that welfare theory is sufficiently realistic to tell us that relative costs of production should not be allowed to get too far out of line with relative market-prices. As a *rough* guide to what ought to be done, it is undoubtedly useful. If one says that welfare economics is useless one means that its precise conclusions cannot be taken seriously. The common-sense argument that if the market value of one thing is twice that of another, then it is usually worth producing if it does not cost more than twice as much—ambiguous though it is—is probably just as valuable, and is certainly less misleading than such conclusions as ‘price ought to equal marginal cost’

Common sense is sometimes bad theory, and then it may mislead. But it is often good, but crude, theory. Economic welfare is a subject in which rigour and refinement are probably worse than useless. Rough theory, or good common sense, is, in practice, what we require. It is satisfying, and impressive, that a rigorous logical system, with some apparent reality, should have been set up in the field of the social sciences’ but we must not let ourselves be so impressed that we forget that its reality is obviously limited, and that the degree of such reality is a matter of judgement and opinion

APPENDIX I

The Logic of Strong Ordering

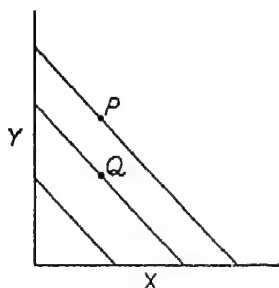
by C B WINSTEN

IN economic theory the assumption of mathematical continuity is very convenient. Most of the geometrical reasoning based on various types of curves, such as demand curves, uses such an assumption. However, continuity is a deep notion and opens up the possibility of many bizarre and unrealistic situations, so that it is necessary, as far as possible, to have strong enough postulates for these situations to be precluded.

In the text and in Appendix II an axiom of strong ordering is used. This supposes that, for any two different collections of goods P and Q , one is definitely chosen rather than the other. There is also a transitivity axiom, that if P , Q , and R are three different collections, and P is chosen rather than Q , and Q rather than R , then in a choice between P and R , P will be chosen. However, if these axioms are taken as they stand, they still leave the possibility that, in one of the situations commonly considered in economics, the consumer's choice will not be determinate, even though his preference field is completely defined in accord with the axioms.

One preference field which gives this paradoxical result is the following.

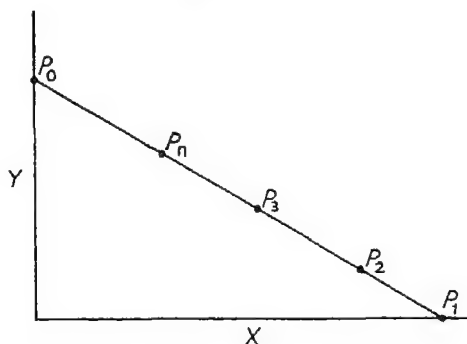
FIG. xv



Suppose there are two goods X and Y , and suppose the points P and Q represent two collections of these goods. Draw lines at 45° to the axis through P and Q as shown in Fig. XV. Then suppose P is chosen rather than Q if it is on a higher line than Q . This defines the preference field unless P and Q lie on the same line.

On any particular line, order the collections of goods as follows

FIG XVI



Let P_0 , the extreme left-hand point of the line, be the least preferred on the line. Next above it, let P_1 , the extreme right-hand point, be preferred. Now order the other points higher the farther to the left they are on the line, supposing that all the remaining points are preferred to P_1 , and therefore, by the transitivity postulate, to P_0 . Thus, in Fig. XVI, the points are ranked $P_3 > P_2 > P_1 > P_0$.

There is now no point on the line that is preferred to all the others. For since there is an assumption of mathematical continuity, however far to the left P_n is, provided it does not coincide with P_0 , there is still another point P_{n+1} between P_0 and P_n , and this point will be preferred to P_n . In turn there will be another point between P_{n+1} and P_0 preferred to P_{n+1} . Thus we can continue to rise in the preference scale by getting closer to P_0 , yet we never attain a maximum because P_0 itself is the least preferred point on the line.

Now suppose that the prices of X and Y are such that the line $P_0 P_1$ is a budget line. Then given this range of choices the consumer will prefer points on $P_0 P_1$ to others, but will not prefer any point on $P_0 P_1$ definitely above all others. This odd situation arises solely because of the assumption of continuity.

If we wish to avoid this paradox, while still retaining strong ordering, it seems adequate to replace the pair of postulates given above by the following pair:

1. In any closed and bounded set of the commodity space, one point is chosen.
2. If P and Q are two points both of which occur in two sets in the commodity space, and P is chosen in one of the sets, then Q will not be chosen in the other.

In the first of these postulates, we extend the range of possible

choices from the start, and do not try to limit it to pairs at first. However, we limit it to bounded sets (which do not give the possibility of indefinitely large collections of goods) and also to closed sets (and these for present purposes we can say are sets which include their boundary lines)

The second postulate is one of consistency. It takes the place of the transitivity axiom, and implies that there is a definite ordering of P and Q .

The two postulates together imply transitivity, and therefore imply a strong ordering of the system. This result can be seen as follows.

Suppose in a pairwise choice, P is chosen rather than Q , and in another pairwise choice Q is chosen rather than R . Then in applying the consistency postulate to the two sets (P, Q) and (P, Q, R) , since P is chosen in the set (P, Q) , Q cannot be chosen in the set (P, Q, R) . In the same way, applying the consistency postulate to (Q, R) and (P, Q, R) , R cannot be chosen in (P, Q, R) . Thus P is chosen in (P, Q, R) , and so, applying the consistency postulate yet again to (P, Q, R) and (P, R) , P is chosen from (P, R) .

The two new postulates thus include the old postulates of strong ordering, but are strengthened to exclude the possibility given at the beginning of this note. In practice, of course, it would be entirely impossible to observe such subtleties of choice given above, but such postulates enable us to use rigorous mathematical reasoning without hedging the statements with exceptions.

APPENDIX II¹

The Construction of a Behaviour-line System from Actual Choices²

DEFINITIONS

1. A collection of goods is said to be *larger than* another collection if there is more of one kind, and no less of any kind. Similarly for *smaller than*
2. A consumer is said to *choose* a certain collection *A* rather than *B* if, when he buys *A*, he could have bought *B*, i.e. in index-number form, if $\sum p_a q_a \geq \sum p_a q_b$
3. A given *price-income situation* is a situation in which the consumer's income and all prices are given.

AXIOMS³

- I A consumer chooses a larger collection of goods rather than a small collection
- II If a consumer chooses *A* rather than *B*, and *B* rather than *C*, then he chooses *A* rather than *C*
- III Every possible collection of goods is chosen in one and only one price-income situation

Consider Fig XVII.⁴ *X* and *Y* are two goods, quantities of which are measured along the two axes. *MN* is a budget line (or price line). *B* represents the collection of goods chosen from the possibilities indicated by all the points on and below the line *MN* (It can therefore be said that *B* is chosen rather than any of these points (by definition 2))

Next, the budget line is rotated about the point *B*, continuously altering the price-income situation in such a way that the consumer could still just buy the collection *B*. In each of the resultant situations

¹ Except for the comment at the end, this appendix is the same as in the first edition. But since the subject has been treated in several further articles since it was written, a comment has been added at the end. I wrote in the first edition, 'this construction is of no particular importance to welfare economics, or indeed any other kind of practical economics'. One might amend this judgement by deleting the words 'particular' and 'practical'.

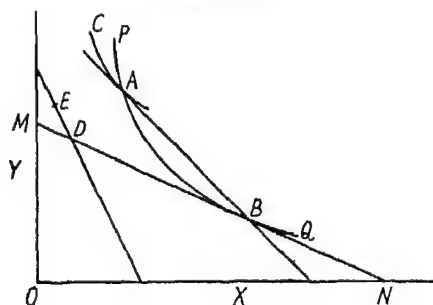
² This construction is suggested by the work of Professor Samuelson in his *Foundations of Economic Analysis*, ch vi, 'A Note on the Pure Theory of Consumers' Behaviour', *Economica*, 1938, and 'Consumption Theory in terms of Revealed Preference', *ibid*, Nov 1948. Also my article 'A Reformation of the Theory of Consumers' Behaviour', *OEP*, NS, no 1, Jan 1949.

³ These axioms are not quite sufficient. A further mathematical postulate is required. See p 286.

⁴ Borrowed from Samuelson, *Foundations of Economic Analysis*, p 148.

a certain collection is chosen. The curve PBQ is the locus of the points representing these collections, it may be called an offer curve. Take any one of these points A , the line AB is then the budget line on which A is the chosen point. A is therefore chosen rather than B , and similarly for any other point on the curve PBQ , and *a fortiori* (by Axiom I) for any chosen point above the curve PBQ . This curve PBQ can only touch MN at B , elsewhere it must lie above it. If, as the budget line was rotated through B , a finite move to a point A was made only after

FIG. XVII



it had moved through some finite angle, then B would have been chosen in more than one price-income situation. This would occur whenever the consumer continued to consume exactly the same collection of goods in spite of a small change in their prices. It follows that the offer curve must be continuous, and tangential to MN at B ¹.

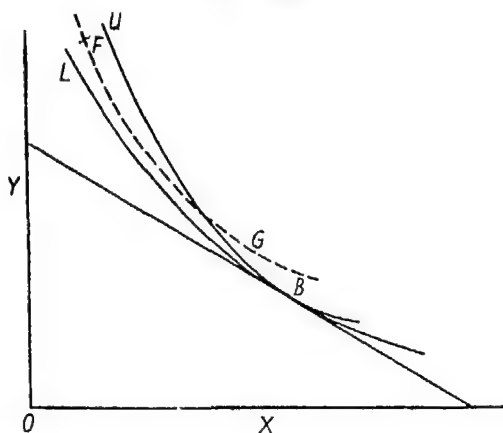
Now take the point A . In a similar manner, an offer curve can be drawn through A . Since it must, using the results obtained above, be tangential to AB at A , it must cut the curve $PABQ$, and therefore enlarge the area within which it can be said that all points are chosen rather than B . This follows because any point C on or above the new offer curve is chosen rather than A (that is, the relation $\sum p_c q_c \geq \sum p_c q_a$ holds) and A is chosen rather than B (the relation $\sum p_a q_a \geq \sum p_a q_b$ holds). The point A can slide along the curve PBQ and generate a family of similar new offer curves. Again, points can be taken on these latter curves, and new offer curves generated, and so on. Eventually a limit will be reached, and the boundary of the resultant area within which it can be said that all points are chosen rather than B can be shown to be a smooth convex curve. It will be called the *upper behaviour line* of B .

¹ If the offer curve approached MN at B' between M and B , then points between B and B' would not be chosen in any price-income situation, *contra* Axiom III.

Now let us take a point D on the budget line MN . We know already that B is chosen rather than D . Next rotate MN about D until D is itself the chosen point. We then know that D is chosen rather than any point E on the new budget line. Similarly D can, by moving along MN , generate a family of new budget lines, and so on, as for the previous construction. Again, we will reach a limit which will be called the *lower behaviour line* of B . This curve must also be continuous and convex to the origin.

It is now required to show that these two behaviour lines through B

FIG. XVIII



coincide. This will be proved by a *reductio ad absurdum*. Therefore in Fig. XVIII the two behaviour lines of B (BU and BL) are drawn separate. The area between the two may be called B 's *region of ignorance*. Within this region let us take any point F , and construct a lower behaviour line of F (shown as a broken line in the diagram). The first possibility is that this lower behaviour line of F cuts the upper behaviour line of B , as in the figure. But then we would have some point, such as G , which would be chosen rather than B . But F would be chosen rather than G , and therefore, *a fortiori*, rather than B . Therefore, *contra hypothesis*, F would not lie in B 's region of ignorance.

The next possibility is that the lower behaviour line of F passes through B itself. It might be thought that this would imply that F would be chosen rather than B . This is not, however, the case because the points on F 's lower behaviour line (which is the boundary of the area containing points rather than which F is chosen) cannot themselves be held to be necessarily 'worse' than F . This possibility must therefore

be excluded by a further postulate which will ensure that no point lies on more than one lower behaviour line. In mathematical terms the required postulate is to the effect that in the differential equation defining a set of lower behaviour lines— $dy/dx = f(x, y)$ — f has continuous partial derivatives. This same postulate suffices also to exclude the remaining possibility that the lower behaviour line of F should cut that of B .

Therefore, given the above postulates, it follows that no region of ignorance can exist. The upper and lower behaviour lines of B must coincide in one curve which can be simply called the behaviour line of B . Thus the conventional set of smooth, convex, non-intersecting 'utility' curves can be derived from certain axioms about economic behaviour. It may be noticed that the convexity of utility curves is here deduced as a theorem. Convexity is the equivalent of Marshall's 'law' of diminishing marginal utility. Thus everything which could be deduced from this psychological 'law' can also be deduced from our axioms about economic choices.

These axioms are all implicit in the usual indifference curve analysis. They are not, of course, in the least realistic. But, given them, it becomes possible to arrange all conceivable collections¹ in order of choice, using as our criterion of choice the index-number formula $\sum p_a q_a \geq \sum p_a q_b$, which, by definition, is the criterion of A being chosen rather than B . Therefore the index-number formula may be regarded as fundamental to the theory of consumers' behaviour.² Here it must be mentioned that,

¹ Strictly speaking, those collections which lie on the same behaviour line as B cannot be determined to be 'better' or 'worse' than B , merely by observing market choices. This is because the behaviour line is a limit reached only as the result of an infinite process. Thus Professor Samuelson (*Econometrica*, Nov. 1948, p. 251) states 'the points lying literally on a frontier locus can never themselves be revealed to be better or worse than A . If we wish, then, we may speak of them as being indifferent to A ' (my italics). If we supposed that observation of actual economic behaviour was the only conceivable method of construction of behaviour lines, then I think that Professor Samuelson would agree that the statement 'the points on A 's behaviour line are indifferent to A ' would be insignificant, or, in his terminology, operationally meaningless. But the behaviour-line system, given the assumption that utility is maximized, could conceivably be constructed by asking the consumer to name all collections 'better' and 'worse' than A . The points actually on the line could, then, be significantly said to be arranged in order of choice, because this order could in principle be discovered. Thus to call the points on a line indifferent to each other, is not merely misleading, but also rules out the (imaginary) methods of construction of behaviour-line systems by questions about hypothetical choices, or by confronting the consumer directly with choices between collections which he does not have to pay for.

² For certain purposes the construction of 'indifference curves', or behaviour lines, is unnecessary. Professor Samuelson (*Foundations of Economic Analysis*, pp. 111, 115) shows that all the theorems of demand theory can be derived from the proposition $\sum p \Delta x \leq 0$ implies $\sum (p + \Delta p) \Delta x < 0$. But this proposition can

if we are dealing with only two situations, then it is, of course, possible that an individual be on a higher behaviour line although it would not be possible for him to buy the goods of the former situation. What the above analysis tells us is that, if we could have as many other situations as we liked, then we could always bring the two initial situations into comparison by bringing in the other situations as stepping-stones. For instance, A may be on a higher indifference curve than Z , but it may not be true that $\sum p_a q_a \geq \sum p_a q_z$. Nevertheless, using this criterion, it must be possible to say that A is chosen rather than Z , by bringing in the fact that A is chosen rather than B , B rather than C , . . . and Y rather than Z . Thus, it becomes possible to say that A is chosen rather than Z , although Z was not an immediate possibility. I do not think this is stretching the ordinary usage of the word 'choice' too far.

Finally, it may be said that this market-behaviour conception of behaviour lines is, in some ways, the most enlightening. It is well known that it is, in fact, impossible to draw up indifference curves by asking questions. For one thing the subject cannot rid his mind of the known exchange values of the collections he is asked to choose between. In practice the only way we can find out if a person is in a chosen position is by employing the index-number criterion $\sum p_2 q_2 \geq \sum p_2 q_1$, together with $\sum p_1 q_1 < \sum p_1 q_2$ as a test of consistency. If the employment of these tests gives no information (as when $\sum p_2 q_2 < \sum p_2 q_1$, and $\sum p_1 q_1 < \sum p_1 q_2$), then it might be possible to find a mediating point which would suffice for us to be able to say which was actually higher up on the order of choices. The behaviour line may be regarded as the ideal limit which would be attained if we could always bring every pair of situations into relation by means of the index-number criterion.

Further Comment

1 Professor Georgescu-Roegen has criticized Axiom II as being 'incorrect'.¹ By this he means that I could not stipulate that A should be chosen rather than C in the sense of definition 2. This is true, and I should have written ' A would be chosen rather than C if there was a free pairwise choice between the two'. Definition 2 then requires to be enlarged to ascribe a meaning to choice in a non-market situation. The critics of 'revealed preference' theory, or of my claim that the behaviour-line be deduced from the definition of consistency as follows. Given that an individual once bought the collection Q_1 , rather than Q_0 , that is, given that $\sum p_1 q_1 \geq \sum p_1 q_0$, then it follows that if he ever buys Q_0 it must not be the case that $\sum p_0 q_0 \geq \sum p_0 q_1$, because in that event he would have been able to buy Q_1 , and he would then, by definition, have chosen Q_0 rather than Q_1 , which would be inconsistent. Therefore $\sum p_1 q_1 \geq \sum p_1 q_0$ implies $\sum p_0 q_0 < \sum p_0 q_1$. Therefore $\sum p_1 (q_0 - q_1) \leq 0$ implies $\sum p_0 (q_0 - q_1) < 0$. Therefore $\sum p \Delta q \leq 0$ implies $\sum (p + \Delta p) \Delta q < 0$.

¹ 'Choice and Revealed Preference', *SEJ*, Oct. 1954.

line system was constructed from actual choices, would then say that this was an illegitimate resort to choice in a non-market situation. If revealed preference theorists had to limit themselves solely to observation, of course they could get nowhere. An observation that 'Smith chose x ' tells one only that Smith chose x , and did not choose any of the other possibilities. The claim was (or should have been) that given certain assumptions about people's choices (which need not all be testable by observing only market behaviour) then the system of curves can be built up by observing only behaviour. If, however, one takes the view that the theory is pointless unless the assumptions are testable in terms of market behaviour, Axiom II can be reformulated to get over this difficulty.

Professor Georgescu-Roegen has shown¹ that this was the merit of Professor Houthakker's so-called strong axiom.² Professor Houthakker's axiom (which may be said to define 'semi-transitivity') is that if A is chosen rather than B and B rather than C , and Y rather than Z , then Z must not be chosen rather than A . We may now extend the meaning of 'chosen rather than' so as to be able to say that A is chosen rather than Z in the above circumstances (I had already made this extension of the meaning of choice, but in terms of full rather than semi-transitivity). Now suppose that A is chosen rather than B , and C is chosen rather than A , in the manner of Fig. XVII. These relations imply that A is not chosen rather than C , and B not chosen rather than A .³ But it is obvious from the construction of Fig. XVII that C was not among the possibilities when B was chosen—hence B was not chosen rather than C , and never would be since, by Axiom III, B is not chosen in any other price-income situation. Thus by the extended definition of 'chosen rather than', and the relation of semi-transitivity, C chosen rather than A , and A rather than B , implies C is chosen rather than B —which is full transitivity.

But this restatement does not yet fully achieve the task of removing altogether axioms which cannot be tested by market behaviour. Axiom I clearly cannot be so tested. But in fact it would seem that Axiom I is unnecessary, since definition 2 in fact does the required trick of enabling one to compare points on the budget line with those below it. It seems to me difficult to object to this definition.

2 A flaw in the construction is the postulate that the differential equation defining the set of lower behaviour lines should have continuous partial derivatives, since this cannot be given any testable meaning in terms of economic choices. This postulate is not required

¹ Idem. ² 'Revealed Preference and Utility Function', *Economica*, 1950.

³ An axiom to this effect (Samuelson's so-called 'weak axiom', see *Foundations*, p. 151) should have been stated among the axioms, but is now contained in the axiom of semi-transitivity.

to rule out the possibility that the lower behaviour line of F cuts that of B (see my cited *OEP* article) But it is required to eliminate the possibility that it joins it at B . Thus if behaviour lines are branched as in Fig V, p 28, the construction appears impossible, supposing that in this diagram AC is the true behaviour line of C , then the present construction would trace the line AC as the upper behaviour line of C , but it would also trace the line BC as the lower behaviour line of C . So far as I can understand them, it appears that all other 'revealed preference' practitioners have made some similar analytic assumption. (See Georgescu-Roegen, loc. cit, p 128)

3 Another difficulty (also pointed to by Professor Georgescu-Roegen, loc. cit.) is that Axiom III cannot be true unless some of both commodities are consumed—or in the general case some of everything. But in the general case this is obviously false. Scarcely anyone consumes something of everything (But eliminating this axiom also upsets the usual conclusions of welfare economics (see pp 25–26, and Appendix III, above) as well as revealed preference theory) However, this does not seem to be an additional difficulty to that discussed in (2), since, given that we assume continuous partial derivatives, there is no need for the present axiom as well

4 Professor Houthakker in the article cited has shown that the present kind of analysis can be extended to more than two goods. In so doing he shows that if transitivity holds good, then the behaviour lines can be integrated into surfaces (This in fact had been already shown by Professor Georgescu-Roegen¹) He proves formally that the points on the surfaces are equivalent (= symmetrical, reflexive, and transitive) to each other, so that they can be regarded as indifferent (since indifference is also an equivalence relation) This, however, does not mean that they could not be ordered by choice—for even if they were, they would still be equivalent in the sense of belonging to the same boundary line.

¹ 'The Pure Theory of Consumer's Behaviour', *QJE*, 1935–6

APPENDIX III

Kinked Behaviour Lines and Boundary Optima

It was stated in Chapter II that much of Welfare Economics remains valid even if it is not assumed that individual behaviour lines are smooth curves

First consider the 'optimum' exchange condition. One can no longer speak in terms of the equality of different individual's marginal rates of substitution as a necessary condition for an optimum, because unique marginal rates of substitution are no longer assumed to exist. One can, however, still say that, with given totals of goods to be distributed, it is a *sufficient* condition of a Pareto optimum that all individuals should be free to trade as they please at a price which equates total supply and demand. This follows simply from the assumption that everyone's equilibrium point is where the budget line touches but does not intersect the highest behaviour line. It follows that no two individuals' behaviour lines (as in an Edgeworth box diagram) can intersect. It is, however, no longer necessary that there should be a single price, in that it would be possible to have a different price for those individuals with kinked curves, without shifting their equilibrium points at all.

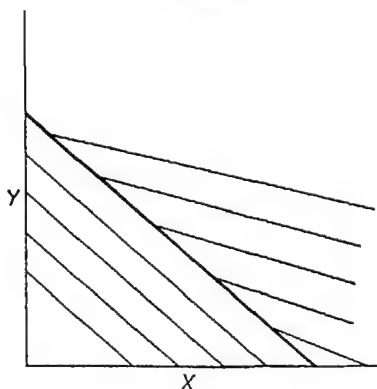
Secondly, the condition that the marginal rate of transformation between two goods should equal the marginal rate of substitution no longer applies. Instead we have the condition that the marginal rate of transformation be equal to the relative equilibrium market prices of the two goods. If this condition is satisfied, then, for the reasons given in the above paragraph, the transformation curve cannot intersect any individual behaviour line. Taken in conjunction with the other 'optimum' conditions, this is a sufficient condition of a Pareto optimum. It is no longer a necessary condition in that it becomes possible for the transformation curve to intersect the price line without intersecting an individual behaviour line.

The theorem derived from these conditions, that if the production of all goods be carried to the point where marginal cost equals price, then (in the absence of external economies and diseconomies) a Pareto optimum is reached, remains valid. But it becomes a sufficient condition, rather than a sufficient and necessary one. The theorem that perfect competition fulfils this condition is unaffected.

That welfare economics is basically undisturbed by kinked behaviour lines is a point of more than purely technical interest. It may very well be true that in so far as people behave consistently at all, they behave in a manner which implies kinked lines. This is liable to be the case if

people, to some extent at least, order their choices by reference to two or more guiding principles, arranged in order of priority but otherwise incommensurable. Let us take an example which illustrates the principle.¹ Suppose a man chooses between two goods on the basis of first a 'life' principle, and secondly a 'pleasure' principle, 'life' having top priority until it is fully satisfied. Until he has enough calories, vitamins, &c., for good health, the fact that he likes certain combinations more than others plays no part. Such a scheme of choice would produce a behaviour pattern of the type illustrated in Fig. XIX.

FIG. XIX



The heavy curve is the locus of points of satiation of the 'life' principle: only on and above this line does the 'pleasure' principle take over. The points on any given 'life' curve are all ordered by the pleasure principle, and they *cannot* therefore be described as indifference curves.

That kinks are likely to be very common can be seen by the following consideration. There are in most people's budgets some goods, with non-zero prices, of which no more would be consumed if there were an 'income-compensated' fall in their prices. (The fall in price must be 'income compensated' otherwise it might be claimed that the reason was that they are inferior goods.) This implies kinks. I personally would say that a great majority of the goods I consume are in this class. One reason for this is of course the indivisibility of many consumption goods. But another is the fact that (perhaps in order to simplify life a little, and not always be calculating) one pursues certain kinds of wants to satiation point before thinking of other ways of spending money.

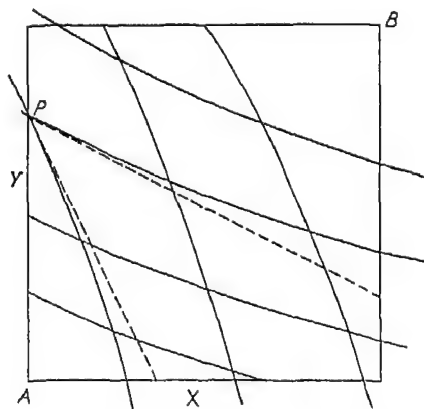
The implications for welfare economics of kinked behaviour lines are

¹ The example is suggested by N. Georgescu-Roegen, 'Choice Expectations and Measurability', *QJE*, Nov. 1954.

the same as those of 'boundary optima'. The reader will have noticed in Chapter VIII that the illustrated optimum position was always within the 'box'. What happens if it is at the edge of the box as in Fig XX?

Within the box there is no point at which the behaviour lines are tangential to each other. The 'optimal' points all lie along the left-hand and upper edges of the box, which thus form the contract curve. Consider one such point P . Through P are drawn two price lines (the dotted lines) one tangential to A 's behaviour line, and the other to B 's. Now either of these price lines, or any between them, would produce P

FIG. XX



as an equilibrium point. From any point on either of them, it would pay both A and B to exchange until the limit was reached when A had no more X to give.

It follows from this that one cannot speak of equality of marginal rates of substitution. Nevertheless, it can easily be seen that, starting from any point on the diagram, a price must establish itself (if both trade freely, and the price falls or rises in response to excess supply or demand) which results in a position on the left or upper edge of the box. Consequently, as with kinked curves, it remains true that a single market price which equates supply and demand is a sufficient condition for the 'optimum' allocation of fixed collections of goods between individuals.¹ Modifications similar to those made above to allow for kinked behaviour lines apply to the other optimum conditions. Marginal cost pricing (together with the exchange conditions) remains a sufficient condition

¹ This case has been dealt with more generally by K. J. Arrow in 'An Extension of the Basic Theorems of Classical Welfare Economics', *Cowles Commission Papers*, NS, no. 4.

of a Pareto optimum, while the theory that perfect competition leads (in the absence of external economies and costs) to a Pareto optimum also remains valid¹

At first glance 'boundary optima' may appear unrealistic but this is only because our diagrams are limited to the two-good case. Second thoughts suggest that there is a large number of things one does not consume at all, and this is likely to apply to everyone. Indivisibility may be the most important reason for this but not the only one, for most people will be able to think of many divisible things they do not consume. In general, when the commodity space is multi-dimensional one would therefore expect every consumer's equilibrium point to be on a boundary or corner of the space.

Finally, there is the question whether the mere statement of the 'optimum' conditions as being sufficient for achieving Pareto optima, rather than as necessary for any 'optimum', represents a significant weakening of welfare economics—whether, in fact, it makes it less applicable. At first sight it does weaken the theory. Thus the non-fulfilment of the 'optimum' conditions in the real world cannot any longer be taken as proof that one is not at a Pareto optimum. It could still be argued that putting the conditions into operation would ensure that one *was* at a Pareto optimum, and that it is better to be sure. This might not, however, seem very compelling. Therefore only disapproval of the prevailing distribution of wealth might be taken as a sufficient reason to make a change. In theory, therefore, this modification would seem to weaken welfare economics but in practice it is very doubtful whether it does so. This is because the practical choice is never between keeping to the *status quo* or putting *all* the 'optimum' conditions into operation and so ensuring a Pareto optimum. In practice our choices are between 'sub-optimum' positions, and the case for a change is in terms of the probable satisfaction of Scitovsky or Kaldor-Hicks criteria.

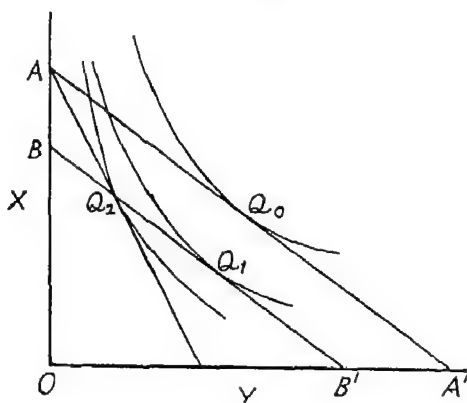
All this is, however, of small importance. For the presence of only one consumer who has a unique rate of substitution equal to the relative prices of the two goods in question means that it remains a *necessary* condition for an 'optimum' that the rate of transformation should equal this rate of substitution. Unless it is so, this particular consumer could be made better off without harming anyone else if the relative outputs of the two goods were slightly changed—and this could not have been achieved by any new deal of the same output of goods. The upshot therefore seems to be to accept the 'optimum' conditions as necessary, and at the same time to recognize that boundary maxima and kinked behaviour lines are likely to be almost universal.

¹ Professor Arrow (loc. cit.) cites an exception but it appears to be one which is ruled out by our assumption that behaviour lines do not slope north-eastwards.

Direct versus Indirect Taxes¹

A single 'economic man' who spends his income on two goods (one of which may be 'money') is assumed. In Fig. XXI Q_0 is the equilibrium tax-free position. When an income-tax equal to AB of X is imposed, Q_1 is reached. The same sum could be raised by an indirect tax on Y , which would result in a position such as Q_2 . From the usual convexity assumption it follows that Q_2 is worse than Q_1 . Q.E.D.

FIG XXI



At first sight this result always looks like a conjuring trick. There is no overt reference to marginal costs. Yet it is well known that nothing can be proved without some such reference.³ The covert reference is as follows: for the proof to be valid the government must be able to buy the same collection of goods whether the individual is at position Q_2 or at position Q_1 . This it can do only if Q_2Q_1 has the same slope as the

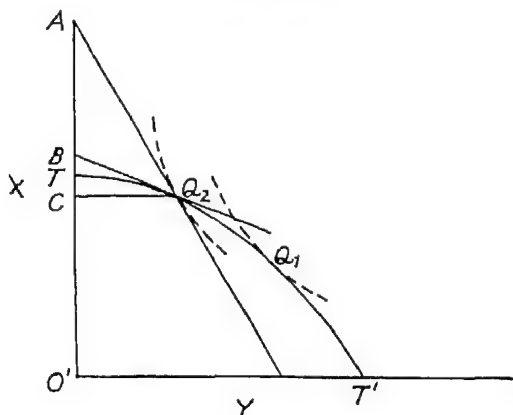
¹ This appendix is based on my article with the same title in *EJ*, Sept. 1951.

² Cf. M F W Joseph, 'The Excess Burden of Indirect Taxation', *RES*, June 1939, H P Wald, 'The Classical Indictment of Indirect Taxation', *QJE*, Aug 1945, A M Henderson, 'The Case for Indirect Taxation', *EJ*, Dec 1948, A T Peacock and D Berry, 'A Note on the Theory of Income Redistribution', *Economica*, Feb 1951.

³ Cf. the original Frisch-Hotelling controversy—*Econometrica*, 1939, pp. 145-60, in particular Professor Hotelling's final note, pp. 158-60.

transformation curve of X and Y (the curve showing the maximum amounts of X which could be produced given varying quantities of Y , and fixed amounts of all other goods) From this it follows that the slope of BB' must equal the relative marginal costs of the two goods. Thus, in Fig XXI, relative marginal costs are assumed to be the same both at Q_2 and Q_1

FIG XXII



Although Fig. XXI is drawn with reference to a single individual, it may be presumed that it is designed to illustrate the relative effects, on each of many individuals, of two different tax systems of equal monetary incidence. Therefore, a considerable shift of production must be allowed for. This being the case, the assumption that relative marginal costs are the same at both Q_2 and Q_1 is in conflict with the normal assumption used in this connexion, that of a diminishing marginal rate of transformation. The analysis is excessively and unnecessarily partial in other ways. The prices of goods, other than those represented, may change when the indirect tax is substituted for the direct. When this is allowed for, it is even conceivable that any given individual would gain as a result of the change.

But none of this invalidates the usual conclusion (that the gainers could overcompensate the losers if direct taxes were substituted for indirect) *given that the supply of labour is not a variable*. In Fig XXII the curve TQ_2Q_1T' is the transformation curve of X and Y , given the quantities of all other goods, and also given the quantities of X and Y demanded by the government.¹ At Q_1 relative price is assumed equal to

¹ The assumption that the government's demands are absolute is made only

relative marginal cost (this is indicated by drawing in a 'community indifference' curve tangential to the transformation curve at Q_1). But at Q_2 this cannot hold, for Y has been made more expensive relative to X , while it has become relatively less costly to produce (at the margin). Thus the fact that the position Q_2 is not 'optimum' follows simply from the divergence of relative prices and relative marginal costs. No other proof is required or possible. But we shall show that the equalization of relative marginal costs and relative prices is not a sufficient condition for an improvement, even given that the distribution of wealth is not adversely affected, *unless* one makes the quite unwarranted and special assumption that the supply of labour is unaffected.

The contrary view has been put by A. M. Henderson, who argued that the fact that all marginal taxation is a tax on work (it can also be regarded as a subsidy on leisure, as far as substitution effects are concerned) does not destroy the case against indirect taxation.¹ The argument is that both indirect and direct taxes sin against the necessary 'optimum' condition that the rate of substitution of leisure for any other good must equal the rate of transformation between leisure and that good. But, it is argued, indirect taxes *also* prevent the rates of substitution between pairs of goods, excluding leisure, being equal to their respective rates of transformation. Thus Henderson wrote:

If a given revenue is required then the resources available to the consumer must be limited to the same extent by either method (i.e. direct or indirect taxation). But the method of indirect taxation has the further disadvantage of reducing the efficiency with which these resources are used, and therefore imposes an added burden.²

This argument is unsatisfactory because it assumes that the resources used are identical in both cases, as can be seen by the reference to 'the resources available to the consumer'. In other words, it has to be assumed that the supply of labour is the same whether the taxation is direct or indirect. This amounts to saying that, for every individual, the cross-elasticity of demand for leisure with respect to all other prices is zero, i.e. leisure is not substitutable for any other good. To all intents and purposes, the assumption that the amount of labour does not vary has crept into an argument designed to show that direct taxation is better than indirect taxation, even when the supply of labour is admitted as a variable. This might not matter if it were really plausible to suppose that it would, under no conditions, vary much. But this is not a plausible supposition.

Consider a perfectly competitive economy with three goods, one for simplicity of exposition. We could in principle treat the government as an 'economic man' with a consistent set of utility curves.

¹ Loc. cit.

² Loc. cit., p. 545

being leisure. Designate leisure by Z and the other two goods by X and Y . Let S and T stand respectively for the marginal rate of substitution and the marginal rate of transformation. We can now distinguish three cases as follows

I Direct taxation Here we have

$$\begin{aligned} S &= T \text{ for the pair } (X, Y), \\ S &\neq T \text{ for the pair } (X, Z), \\ S &\neq T \text{ for the pair } (Y, Z) \end{aligned}$$

II Indirect taxation on one good other than leisure. Letting the taxed good be X , we have

$$\begin{aligned} S &= T \text{ for the pair } (Y, Z), \\ S &\neq T \text{ for the pair } (X, Y), \\ S &\neq T \text{ for the pair } (X, Z) \end{aligned}$$

III. Unequal indirect taxation on both goods other than leisure. Here we have

$$S \neq T \text{ for all three pairs}$$

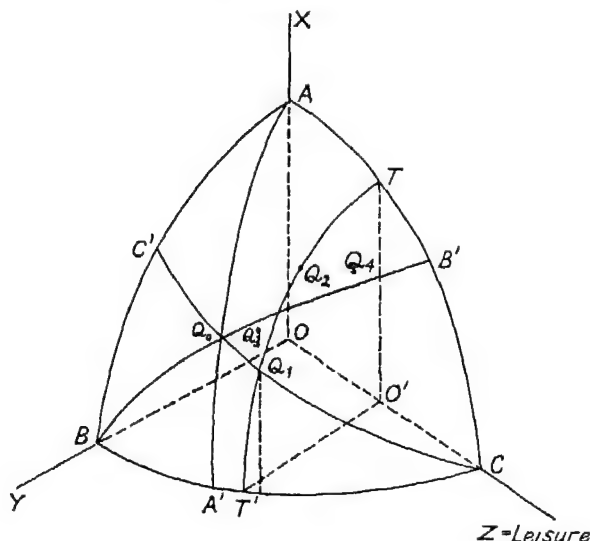
A comparison of Cases I and II makes it sufficiently obvious that no argument against indirect taxation can be perfectly general. The two cases are quite symmetrical. Unless special assumptions are made, whatever can be said about one can be said about the other. But even if Case III is considered to be what is normally meant by indirect taxation, nothing appears to follow.

Let us illustrate this. In Fig XXIII ABC is the production surface after subtraction of the government's fixed demands. It is assumed that the government succeeds in manipulating the budget surface so that the community's chosen point on that surface is also a point on the production surface ABC . If the chosen point were above the surface the government would not be getting the goods it required, if below it would be getting more than it required.

The points Q_0, Q_1, Q_2, Q_3 , and Q_4 are points on the surface. AA', BB' , and CC' are surface lines along which one of the three 'optimum conditions is satisfied. Thus at any point on the line CC' , the partial rate of substitution (leisure constant) of Y for X equals the partial rate of transformation (leisure constant). These contract lines, if projected on to the planes BOC, AOC , and AOB respectively, would be analogous to ordinary contract curves. The point Q_0 is the only point at which all the optimum conditions are satisfied. Case I lands us on the line CC' between C and Q_0 . Case II lands us either on AA' , between A' and Q_0 , or on BB' , between B' and Q_0 . Case III brings us to some point which lies on none of the contract lines. Part of Fig XXII is embedded in Fig XXIII. The plane surface $TQ_2Q_1T'O'$ appears in both diagrams.

The advocates of direct taxation or subsidization have to claim that every point on CC' is better than any other point on the production surface. It is intuitively obvious that there is no reason whatever for claiming that points on the line CC' are superior to those on the lines AA' and BB' . The lesser claim might, however, be made that points on a contract line are superior to points not on a contract line.

FIG. XXIII



What, then, can be said about the relative superiority of points such as Q_0 , Q_1 , Q_2 , Q_3 , or Q_4 ? First, Q_0 is 'superior' to any other point because all the 'optimum' conditions are satisfied.¹ In other words, a 'community-indifference' surface is tangential to the production surface at Q_0 , and cannot lie below the production surface at any other point. Secondly, the 'community-indifference' surface appropriate to Q_1 cannot lie below the production surface in the neighbourhood of the point Q_2 . This is because it is tangential to the line $T'Q_1Q_2T$ at Q_1 . Thirdly,

¹ By saying one point is 'superior' to another we mean that its 'community-indifference' surface passes outside (farther from the origin than) the other point in the neighbourhood of that point, which implies that the potential losers by a move from the latter to the former would be unable profitably to bribe the potential gainers to oppose the change. Therefore no point x can be 'superior' to any other chosen point y if the indifference surface of x is below the production surface in the neighbourhood of y .

it is quite consistent, both that these two conditions should be fulfilled and that the same indifference surface should or should not lie below the production surface in the neighbourhood of a point such as Q_2 . There therefore appears to be no reason whatever to support any claim that Q_1 must be 'superior' to Q_3 . A movement from Q_1 to Q_3 would reduce the amount of leisure. But it is also conceivable, given suitable production and indifference surfaces, that the indifference surface of Q_1 should lie below the production surface in the neighbourhood of a point like Q_4 , where the amount of leisure is increased. The conclusion is that nothing whatever can be said about the 'superiority' of direct taxation unless it is certain that the amount of leisure will not change.

We have seen that Professor Henderson based his argument on the contention that the supply of labour would be constant. This means, in terms of Fig. XXIII, that it is presumed that a change from direct to indirect taxes would always cause a movement from a point like Q_1 to one like Q_2 , leisure remaining constant. Taken to its logical extreme, such a contention is highly paradoxical. It implies that the amount of labour supplied is a function only of the quantities of goods consumed by the government. In the limit this implies that people would work as much even if income-tax was 100 per cent. of all incomes, consumption goods being supplied free! In general, it must be said that the 'purely theoretical' case against indirect taxation is non-existent.

We have seen that there is no general theoretical argument against indirect taxation. There is, on the other hand, quite a lot to be said in favour of it, apart from the paternal reason that people do not always know what is good for them. It is a cheaper method of taxing the poorer classes, and it cannot be so easily evaded as income-tax. Adjustments of indirect taxation can be made more rapidly than adjustments in direct taxation. It is therefore useful in regulating effective demand. In abnormal times, as when it is desired to cause a shift in the propensity to consume, it is useful to have indirect taxation which can be rapidly increased or decreased. If people take such shifts to be temporary, then the desired effect may be achieved. Again, in abnormal times, when shortages prevent output being adjusted until price is equal to marginal cost, indirect taxation (which then sins against no 'optimum' conditions) may prevent some undesirable redistributional effects. It may thus be used as an anti-profiteering weapon.

Taking everything into consideration, we can hardly complain if administrators have largely ignored 'the case against indirect taxation'. This is not to say that there may not sometimes, in particular cases, be a good case against indirect taxation. A typical argument is 'Why tax luxuries? It would be better to increase the progressiveness of income-

tax, and leave those who remain comparatively rich to direct production as they will' It is left to the reader to judge how strong this argument is, bearing in mind the above arguments and also the fact that some luxuries may give rise to external diseconomies Possibly, for some people, the validity of the argument would turn on this question of whether the particular luxury gave rise to external economies, or diseconomies, of consumption It should also be noted that indirect taxation of luxuries shifts the real income of people with equal money incomes in favour of those who have larger families

If any general statement can be risked, it is simply that the best taxes are those on goods for which the demand is least elastic The same holds true for subsidies Income-tax, which is analogous to a subsidy of leisure, is not exceptional Only in so far as the demand for leisure is highly inelastic is it a good tax The purely theoretical 'case against indirect taxation' is an illusion It is a particular case of a more general illusion that adjusting outputs until prices are equiproportional to marginal costs is sufficient for an improvement, or would be sufficient for an improvement if the distribution of wealth were not adversely affected

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